

How perceptions of autonomy affect suburban elementary school teachers' perceptions of efficacy regarding state-mandated testing

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BOSTON COLLEGE
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HOW PERCEPTIONS OF AUTONOMY AFFECT SUBURBAN ELEMENTARY
SCHOOL TEACHERS' PERCEPTIONS OF EFFICACY REGARDING STATE-
MANDATED TESTING

Dissertation
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How perceptions of autonomy affect suburban elementary school teachers' perceptions of efficacy regarding state-mandated testing

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ABSTRACT

The No Child Left Behind Act directs states to establish annual assessments to measure student mastery of state-established learning expectations. American public school students in grades 3 through 8, with few exceptions, take a series of state-mandated assessments each year; students in grades 10 through 12 take a series of state-mandated assessments at least once during those years. NCLB and state laws mandate considerable consequences if students do not perform well on the assessments.

Research suggests that the standardized tests associated with NCLB affect curricula and pedagogy. What is not known is the level of control teachers believe they have over the curricular and pedagogic changes, and how that level of perceived control affects teachers' perceptions of their ability to prepare students for the state-mandated tests.

The purpose of this research study was to examine how teachers' perceptions of autonomy affect their perceptions of efficacy regarding state-mandated testing. Data were collected with the Teaching Autonomy Scale (Pearson & Hall, 1993) and follow-up interviews with teachers from a suburban Connecticut public school district.

The findings of the study suggest that teacher perceptions of autonomy do not significantly affect their perceptions of efficacy regarding the state-mandated tests

associated with NCLB. The findings also suggest that teacher perceptions of autonomy do affect how teachers view the state-mandated standardized tests. Teachers with high perceived autonomy tended to report that the state-mandated tests had less of an impact on their classroom practices; had some discretion regarding how to use curricular materials in their classes; said that their students performed well on the state-mandated tests because the students engaged in authentic learning exercises that taught the students the skills and concepts assessed by the tests; tended to view the state-tests as assessments of the reading, writing, and math curricula; and tended to report that the state-mandated tests had mostly positive effects on education. Implications for practice, public policy, and further research are presented.

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How perceptions of autonomy affect suburban elementary school teachers' perceptions of efficacy regarding state-mandated testing

CHAPTER 1: OVERVIEW OF THE STUDY

The No Child Left Behind Act (NCLB) requires each state to measure, with few exceptions, every child's progress toward mastering state established standards in language arts and mathematics in grades 3 through 8 and at least once during grades 10 through 12. (U.S. Department of Education [USDOE], 2004c). There are two purposes for the testing policy: to measure student achievement with the state's content standards and to understand how well schools are educating students in the content areas (Pedulla, Abrams, Madaus, Russell, Ramos, and Miao, 2003).

NCLB requires public school districts in each state to present student scores in annual report cards. The report cards are disaggregated by race, ethnicity, gender, English language proficiency, migrant status, disability status, and low-income status (USDOE, 2003c). The report cards allow state, district, and school officials, as well as students and their parents, to see how well districts and schools are preparing students for the standardized tests. States identify districts and schools that do not meet the score standards established by the state as not making Adequate Yearly Progress (AYP). States label districts and schools that do not make AYP for two consecutive years as Needing Improvement and subject them to a variety of sanctions, which could include a loss of funding and the removal of teachers and administrators (USDOE, 2004c). Many states and school districts, in an attempt to end social promotion, use the tests as summative assessments of student knowledge and ability (Holmes, 2006). Thus, the stakes associated

with the testing requirement of NCLB are high for public school students, teachers, and administrators.

Statement of the Problem

The high stakes resulting from the state-mandated tests associated with NCLB affect several aspects of classroom practice, including the curricula taught in schools. Clarke, Shore, Rhoades, Abrams, Miao, and Li (2003) found that a majority of teachers interviewed in Kansas, Massachusetts, and Michigan reported curricular changes resulting from the need to prepare students for the state-mandated tests, with the removal of content the most frequently reported activity. Reported positive effects included “removal of unneeded content, a renewed emphasis on important content, and the addition of important topics previously not taught,” while reported negative effects included “a narrowing of the curriculum, an overemphasis on certain topics at the expense of others, and an overcrowded curriculum” (p. 47).

Research suggests that state-mandated tests impact pedagogy. Clarke et al. (2003) found that a majority of teachers interviewed in Kansas, Massachusetts, and Michigan changed their instruction and assessment practices in response to state-mandated tests. Reported positive changes included “renewed emphasis on writing, critical thinking skills, discussion, and explanation.” Noted negative changes included “reduced instructional creativity, increased preparation for tests, a focus on breadth rather than depth of content coverage, and a curricular sequence and pace that were inappropriate for some students” (p. 47). These data are consistent with the findings of Hoffman, Assaf, and Paris (2001). They found that teachers in Texas spent 8 to 10 hours per week

preparing students for the state-mandated tests, with the most common activities relating to test-specific practices such as reviewing how to mark the answer sheet.

It is evident from the research that state-mandated testing affects academic content and instructional practices in public schools. It is unclear what level of control teachers perceive they have over the pedagogic and curricular changes, and whether that level of perceived control affects their perceptions of their ability to prepare students for the state-mandated tests.

Research Questions

The purpose of this study is to examine the relationship between perceived teacher autonomy and perceived teacher efficacy pertaining to the state-mandated tests associated with NCLB. Perceived teacher autonomy is the sense that a teacher controls his or her work environment (Pearson, 1995). In this study, perceived teacher autonomy refers to the level of control a teacher believes she or he has over issues of curricula and pedagogy. Perceived teacher efficacy is the sense that a teacher can affect positive learning outcomes for all students (Ross, 1994). In this study, perceived teacher efficacy refers to a teacher's beliefs in his or her ability to prepare students for the state-mandated tests associated with NCLB and teach reading, writing, and mathematics. Test-preparation practices are the broad spectrum of learning exercises, ranging from conceptual development activities to specific test-taking strategies, students complete to perform to the best of their ability on the state-mandated tests. In this study, test preparation practices refer to all learning exercises that the teacher identifies as important to preparing students for the state-mandated standardized tests.

This study examines the relationship between perceived teacher autonomy and perceived teacher efficacy in relation to the state-mandated tests associated with NCLB by addressing two questions:

1. How much autonomy do suburban elementary school teachers perceive that they have over curricular and pedagogic issues? This question explores teachers' beliefs about the amount of control they believe they have over the content and practices that will prepare students for the state-mandated tests associated with NCLB. For example, do individual teachers make curricular and pedagogic decisions regarding how to teach their students the material assessed on the state-mandated test? Do teachers collaborate with their peers or other school personnel to develop a collection of exercises they may use to supplement their classroom practices? Do administrators and/or curriculum coordinators mandate a prescriptive test-preparation program that all teachers must follow?
2. Does the level of perceived autonomy in the development and implementation of test preparation practices affect perceived teacher efficacy? This question examines whether there is a relationship between teachers' perceptions of control over the learning exercises that prepare students for the state-mandated tests and their beliefs regarding their effectiveness to prepare students for the tests. For example, do teachers with low perceived autonomy regarding curricular content and teaching practices have different beliefs about how well they prepare students for

the state-mandated tests than teachers with high perceived autonomy?

Significance of the Study

This study is significant because of the high stakes related to the state-mandated tests associated with NCLB for students, teachers, and administrators. Students must perform to the best of their abilities on the state-mandated tests, particularly when districts use the tests as summative assessments; teachers must prepare students for the state-mandated tests and life beyond the tests; and administrators must provide teachers with the support necessary to prepare their students. Students, teachers, and administrators will benefit from test-preparation practices that help students perform to the best of their ability on the state-mandated tests and provide students with skills that they can retain and use beyond the tests. The relationship between perceived teacher autonomy and perceived teacher efficacy is an important factor to analyze when considering ways to develop such preparation programs.

Design of the Study

The research design is presented in detail in Chapter 3. In sum, this study used a mixed-method design to collect data from suburban elementary school teachers about their perceptions of autonomy and efficacy regarding the state-mandated tests associated with NCLB. Participants completed a survey called the Teaching Autonomy Scale (TAS) (Pearson & Hall, 1993), presented in Appendix A. The survey measured participants' perceptions of curricular and general teaching autonomy. The questionnaires were analyzed and trends were identified. Ten participants were selected, based on their

responses, for follow-up interviews. The interviews explored the reasons for the teachers' perceptions of autonomy and measured teachers' perceptions of efficacy regarding the state-mandated tests associated with NCLB. Appendix D presents the interview protocol.

Limitations of the Study

This study had four limitations that detracted from the findings. First, the sample size for the study was small and taken from only one school district. Additional studies with a larger sample sizes that include greater racial and economic diversity may produce statistically significant findings. The small sample size prevents the conclusions from this study from being generalized.

The second limitation of this study was that study participants were elementary school teachers in a Connecticut public school district that employed a relative of the researcher. The relative did not work in any of the schools used in the study, did not evaluate or supervise any potential participants, and did not participate in any aspect of the study. In addition, the researcher was a student at one of the elementary schools that participated in the study. None of the researcher's former teachers participated in the surveys or interviews.

The third limitation of this study involved the selection of the people for the interviews. The researcher gave the participants the 20-item TAS, used those data to calculate total autonomy scores, and used the TAS scores to selected people for interviews. When examining the survey data, the researcher found two items that solicited responses that were inconsistent with the rest of the responses on the instrument. The researcher noted that the two items had very low item-total correlations and removed

them from the results. After removing the two items and recalculating the total autonomy scores, the researcher identified three people who had not been invited to participate in the interviews initially but had recalculated TAS scores higher than one of the high autonomy interview participants, EH. EH's TAS score was 47, which was close to the mean of 45. This may be why some of EH's interview responses were not consistent with the other members of the high perceived autonomy group.

The fourth limitation of the study related to the people invited to participate in the interviews. Six people with high autonomy scores (59, 58, 55, 55, 53, and 51) and three people with low autonomy scores (27, 30, and 35) declined the invitation to participate in the interviews. In addition, three people with high autonomy scores (59, 54, 55) could not participate in the interviews because they had not administered the state-mandated tests associated with NCLB. The lack of people with high and low perceived autonomy scores to participate in the follow-up interviews affected the study in two ways. First, since a large number of survey respondents with the highest and lowest autonomy scores did not participate in the interviews, the interview data were collected from survey respondents with TAS scores close to the mean (45). This resulted in some findings being less clear than they might have been if people with the highest and lowest TAS scores participated in the interviews. Second, four of the five interview participants with low TAS scores were from the same school, BES. This would not have been the case if the three participants with lower TAS scores participated in the interviews since they were from schools other than BES.

Overview of the Study

This thesis consists of five chapters. Chapter 1 is an introduction to the study. The introduction provides a synopsis of the problem and the questions the researcher examined, and a brief description of how the researcher studied the problem.

Chapter 2 reviews the literature relevant to the research study. The literature review presents the history of the modern educational accountability movement in the United States; examines the No Child Left Behind Act; describes how the state of Connecticut implemented the No Child Left Behind Act, particularly the testing requirements; and details the theoretical foundations and relevant research relating to perceived teacher autonomy and perceived teacher efficacy.

Chapter 3 describes the research design used in this study. The chapter details the mixed-method research project used to collect data for this study, the rationale for using a mixed-method design, the sampling techniques used to recruit and select participants, and the methods used to analyze and report the data.

Chapter 4 presents the findings of the study. The chapter describes the city and schools where the study participants taught, reviews the statistical findings from the survey data, describes the interview participants, presents themes drawn from the interview data, and details the conclusions drawn from the survey and interview data.

Chapter 5 discusses the findings and their implications. The chapter summarizes the findings of the study; compares the findings of this study with the literature reviewed in Chapter 2; describes the limitations of the study; and presents recommendations for practice, public policy, and further research.

CHAPTER 2: LITERATURE REVIEW

There are many factors to examine when researching the relationship between perceived teacher autonomy and perceived teacher efficacy regarding state-mandated testing in a Connecticut public school district. It is necessary to review the historical foundations of the standards-based reform movement, the purposes and procedures of NCLB, the way Connecticut implements the testing requirement of NCLB in public elementary schools, and the current research regarding perceived teacher autonomy and perceived teacher efficacy.

The Modern Educational Accountability Movement

Two catalytic events led to increased educational accountability in American public schools: the successful launch of the *Sputnik* satellite by the Soviet Union in 1957, and the publication of *A Nation at Risk*, a report on the state of American public education, in 1983. This section of the literature review describes these two events that led to the educational reform laws that shaped the modern accountability movement. Since elementary school teachers, specifically in grades 3 through 6, are the focus of this study, the descriptions of the reform initiatives will concentrate on elementary schools.

1957-1982 Sputnik

The first period of the modern educational accountability movement was from 1957 to 1982. This period had two foci: increasing academic standards and school accountability, and providing equitable educational opportunities for economically disadvantaged students, students of color, and students with disabilities (Bailey &

Mosher, 1968). The successful launch of the satellite *Sputnik* by the Soviet Union on October 4, 1957 initiated this period of educational reform (Garber, 2003). The launch caused the United States to question its scientific, technological, military, and economic strength. This galvanized the American public behind the need for federally supported educational reform, which was a change in American educational philosophy (Bybee, 2007).

American public school philosophy, dating back to the colonial period, emphasized local control of schools (Adams, 1875; Welter, 1962). The federal government, while indirectly involved in education by providing land grants for schools, left direct control of educational policy and operation to the states (Alexander & Alexander, 2001). After *Sputnik*, the American public identified a strong education system as an issue of national interest that required support from the federal government (Bybee, 2007).

The federal government responded to the demands for increased educational accountability by enacting the National Defense Education Act of 1958 (NDEA). The purpose of NDEA was to improve education in American secondary and higher education programs by promoting higher academic standards, particularly in mathematics, science, and world languages, and by providing funds for new school construction (Alexander & Alexander, 2001; Bailey & Mosher, 1968). NDEA specifically prohibited the federal government from controlling education at the local level, but it marked the beginning of a shift towards greater federal involvement in public education, as evidenced by an increase in legislation and financial investment.

The Elementary and Secondary Education Act (ESEA), the largest and most important federal investment in elementary and secondary education, was signed into law in 1965 (Alexander & Alexander, 2001). This law, which was a part of President Lyndon Johnson's "War on Poverty," was designed to raise academic accountability for disadvantaged students by providing resources to ensure that they had access to high quality public education. ESEA, which was set to expire in 1970, has been reauthorized, restructured, and often renamed every five years since its inception (Alexander & Alexander, 2001). President George W. Bush reauthorized it in 2002 and renamed it the No Child Left Behind Act (NCLB). At the time of this study, NCLB reauthorization was being debated in Congress.

ESEA was originally made up of five sections, called titles. Each title provided financial assistance for different groups or areas of need: Title I for local educational agencies to educate financially disadvantaged students; Title II for school libraries and instructional materials; Title III for supplemental educational services; Title IV for educational research and training; and Title V to strengthen the states' departments of education. Additional titles have been added over the years to address the needs of disenfranchised groups of students. For example, Title VI was added in 1967 to address the needs of Native American children, the children of migrant workers, and children with handicaps (Alexander & Alexander, 2001).

Title I, which President Lyndon Johnson authorized in 1965 as the centerpiece of ESEA, was the largest and most influential part of the law (Puma & Drury, 2000). The allocation criteria and implementation structure have changed over the years, but the

purpose of Title I has remained the same: to provide school districts and schools with funds to improve the educational opportunities for educationally disadvantaged students (Puma & Drury, 2000). In 2004-2005, 93% of America's school districts, and 56% of American public schools, received Title I funds. The funds served approximately 18 million students: 36% were Hispanic, 34% were white, 25% were black, 3% were Asian, and 2% were American Indian (Stullich, Eisner, & McCrary, 2007).

Currently, Title I allocations are based on the number of low-income students in a district as determined by census data poverty estimates and the cost of education in the state (USDOE, 2006). Based on those data, Title I funds are allocated in one of two ways: school-wide assistance or targeted assistance. School-wide assistance applies when 40% or more of the students in a school are eligible for Title I. Schools that received school-wide assistance may use the Title I funds to implement academic programs that benefit all students in the school. Targeted assistance applies when less than 40% of the students in a school qualify for Title I assistance. Schools that received targeted assistance must design instructional programs to meet the needs of students who are identified as failing, or at risk of failing, to meet the state's performance standards (USDOE, 2006). Currently, approximately 60% of Title I funds support school-wide programs and 40% support targeted assistance programs, which is a significant change from the 1994-1995 school year when approximately 90% of Title I funds went to targeted assistance programs (Stullich, Eisner, & McCrary, 2007).

School districts and schools are given the authority to determine how to use Title I funds as long as the programs are based on effective ways of improving student

achievement and include strategies to support parental involvement (USDOE, 2006). During the 2004-2005 school year, 73% of Title I funds were spent on instruction, 16% on instructional support, and 11% on administrative and support costs such as transportation. The majority, 72%, of those funds went to students in pre-kindergarten through grade 6 (Stullich, Eisner, & McCrary, 2007). Three of the six elementary schools in this study qualified for Title I funds in 2006: DES and FES (targeted assistance) and CES (school-wide assistance) (Connecticut Department of Education [CTDOE], 2006c).

NDA and ESEA, particularly Title I of ESEA, significantly increased the amount of money invested by the federal government in education. While state and local education agencies largely controlled the use of the funds, the legislation represented a significant increase in federal involvement in public education. This increase in federal funding was intended to improve educational accountability by giving all students access to the books, materials, facilities, and services necessary to succeed in school and meet the performance standards on the state-mandated tests.

1983-present A Nation at Risk

The publishing of *A Nation at Risk* in 1983 started the second period of the modern educational accountability movement. The National Commission on Excellence in Education (NCEE), the author of *A Nation at Risk*, described the state of public education in the early 1980's and presented recommendations for improvement. Among the recommendations were the development of rigorous academic standards and the use of assessments to determine the ability of students, particularly students of color, students with disabilities, and students with economic disadvantages, to meet those standards

(Gardner, 1983). *A Nation at Risk* initiated standards-based educational reform (Hayes, 2004).

A Nation at Risk described the American education system in the early 1980's as being in a state of severe decline. NCEE acknowledged the historical successes of the American education system, but wrote, "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people" (Gardner, 1983, p. 3). NCEE described thirteen "indicators of the risk" which included declining literacy levels among high school graduates; poor performance on standardized tests when compared with other industrialized nations; and a reduction in achievement on standardized tests, including the SAT, in the twenty six years since the launch of *Sputnik* (Gardner, 1983, p.4).

NCEE acknowledged the "significant movement by political and educational leaders" to reform education through improved accountability since the launch of *Sputnik* in 1957 (Gardner, 1983, p. 5). NCEE proposed that the reform movement be restructured with an emphasis on academic content and standards. *A Nation at Risk* presented five recommendations to correct the educational problems outlined in the report: Content; Standards and Expectations; Time; Teaching; and Leadership and Fiscal Support. NCEE intended the five recommendations be enacted to initiate immediate and long-term educational reform (Gardner, 1983).

NCEE first recommended making the content taught in American schools more rigorous and appropriate. To accomplish this goal, NCEE recommended the teaching of the "New Basics," which targeted English, mathematics, science, social science,

computer science, and world languages in elementary, middle, and high schools (Gardner, 1983, p. 4). NCEE specified the content that should be taught in each subject, the number of years of study required in each academic area in order to earn a high school diploma, and that students develop a foundation for each subject during the eight years leading to high school. NCEE recommended a focus in these areas because they were essential to students regardless of their educational or work objectives, and because they “constituted the mind and spirit of our culture” (Gardner, 1983, p.4).

The second recommendation of NCEE concentrated on raising expectations for students at all levels and implementing measurable standards for academic performance and student conduct. To accomplish this goal, NCEE recommended that colleges and universities raise admissions requirements and base those requirements on the New Basics, that publishers update and upgrade text books to assure more rigorous content, and that schools administer standardized tests at major transition points to certify students’ credentials, identify the need for remedial intervention, and identify opportunities for advanced work. NCEE made these recommendations because they would help students perform at their academic best and promote authentic accomplishment (Gardner, 1983).

NCEE advocated for an increase in the amount of time devoted to learning the New Basics in their third recommendation. NCEE advised schools to devote more time to learning through better time management during the school day, an extended school day, and/or an extended school year. NCEE suggested state legislatures consider enacting seven hour school days, extending school years up to 220 days, and developing student

conduct codes that would allow teachers to focus classroom time on teaching rather than discipline. NCEE expected student achievement to improve with an increase in quality instructional time (Gardner, 1983).

NCEE's fourth recommendation focused on improving classroom teaching. To accomplish this goal, NCEE recommended that teachers demonstrate high educational standards and the ability to effectively teach students, that school districts develop financial incentives to recruit and retain quality teachers, and that teacher preparation programs be judged on the ability of their graduates to meet high teaching standards. NCEE believed these recommendations would ensure that the people entering and remaining in the teaching profession would be effective in the classroom (Gardner, 1983).

The fifth recommendation of NCEE focused on making educational and political leaders accountable for the reforms recommended in the report. NCEE recommended that federal and state governments make funding education their primary responsibility, that the federal government support educational research, and that local education agencies hold superintendents and principals accountable for educational reform. These recommendations would ensure proper implementation of the suggested reforms (Gardner, 1983).

A Nation at Risk had a significant impact on American public education. Ineffective school hierarchies and reduced academic standards and accountability sparked federal and state legislation that emphasized standards-based accountability and public school alternatives, such as charter schools (Hayes, 2004). NCLB incorporates some of

the recommendations detailed in *A Nation at Risk*, including establishing academic standards in language arts and mathematics, requiring teachers to be highly qualified, and using standardized tests to assess student progress towards mastering state established standards.

The modern educational accountability movement, which is defined by the educational reforms and financial investment in education over the past half-century, has improved the quality of education for many students in American public schools. However, there is a persistent disparity in academic achievement between white and Asian students and their black and Hispanic peers, and between students with economic disadvantages and their economically stable peers (USDOE, 2004d). The No Child Left Behind Act, the most recent reauthorization of the Elementary and Secondary Education Act, attempts to ameliorate these academic disparities. The next section of the paper presents the four educational principles of NCLB and reviews the sanctions associated with poor student performance on the state-mandated tests.

The No Child Left Behind Act

The No Child Left Behind Act (NCLB) is a major standards-based education reform initiative. The law provides states with educational guidelines that they must incorporate if they accept federal funds for education. Since every state accepts federal money for education, NCLB applies to all American public schools. This section of the literature review presents the relevant facets of NCLB for public elementary school students, administrators, and teachers. The population for this study is elementary school mathematics and language arts teachers of grades 3 through 6.

Pillars of the No Child Left Behind Act

NCLB is America's most recent federal education reform initiative. The law, which was signed by President George W. Bush in 2002, reauthorizes and reforms the Elementary and Secondary Education Act of 1965 (ESEA), which is the main federal law affecting elementary and secondary education. The stated goal of NCLB is to close the achievement gap between disadvantaged students and their peers (USDOE, 2004b). Lawmakers expect NCLB to meet that goal by supporting four educational principles, called the Four Pillars of NCLB: Stronger Accountability for Results, More Freedom for States and Communities, Proven Education Methods, and More Choices for Parents (USDOE, 2004a).

NCLB Pillar 1-Stronger Accountability for Results

The purpose of the Stronger Accountability for Results pillar is to strengthen Title I schools through statewide accountability programs that cover all public schools and their students (USDOE, 2004b). There are three requirements for the statewide accountability programs. First, states must develop appropriately challenging standards in language arts and mathematics. Second, states must annually assess students in grades 3 through 8, and assess students in grades 10 through 12 once during that period, to determine whether students mastered those standards. Third, states must develop annual progress objectives for public schools to make certain all groups of students reach proficiency in language arts and mathematics within 12 years (USDOE, 2004c).

An important part of ensuring educational accountability is making information about schools and how well they prepare students available to the public. Under NCLB,

states and school districts must publish annual report cards that present information on student performance on the state-mandated language arts and mathematics assessments as basic, proficient, or advanced (USDOE, 2003c). To ensure disadvantaged students are receiving the benefits of the law, the annual report cards must be disaggregated by student subgroups according to race, ethnicity, gender, English language proficiency, migrant status, disability status, and low-income status (USDOE, 2003c). Report cards must present information about the effectiveness of the public schools in every district in the state. Through this process, parents may learn how their child is performing on the state-mandated language arts and mathematics assessments, and they will see how effective their child's school is at preparing students for those assessments.

NCLB mandates that school effectiveness be measured in terms of Adequate Yearly Progress (AYP). AYP is the minimum level of improvement, measurable in terms of student performance on the state-mandated tests associated with NCLB, which schools must achieve within certain time frames (USDOE, 2003c). According to the law, states must identify the levels of performance necessary for schools to make AYP. To measure AYP, each state establishes an academic starting point, which is based upon the performance of the lowest performing school or the lowest performing demographic group in the state, whichever is lower (USDOE, 2004d). The state then establishes a standard of student performance, measured with annual standardized tests, which schools must reach within two years in order to make AYP. After the initial two-year period, each state must set additional performance thresholds at least every three years, with the goal of all students in the state performing at the proficient level or higher on the language arts

and mathematics assessments at the end of 12 years (USDOE, 2003c). Schools that reach the state's performance thresholds make AYP.

Schools that fail to meet the performance thresholds established by the state are identified as not making AYP. NCLB mandates sanctions for schools that do not make AYP for certain periods of time. Schools that fail to make AYP for two consecutive years are identified as Needing Improvement. NCLB requires a school with this label to develop a two-year improvement plan, and requires the school district provide technical assistance to the school (USDOE, 2003c). If the school does not make AYP for four years, the district must take Corrective Action. A school identified as needing Corrective Action is subject to significant educational changes, such as replacing certain staff members or implementing new curricula (USDOE, 2003c). If the school does not make AYP for five years, the district must initiate a Restructuring plan for the school. A school that requires Restructuring is subject to massive educational changes, such as replacing the entire teaching and administrative faculties or turning control of the school over to the state (USDOE, 2003c). Throughout the sanction process, parents and students are given options to help students receive a quality education regardless of the limitations of the students' public school. These options will be described in Pillar 4.

NCLB Pillar 2-More Freedom for States and Communities

More Freedom for States and Communities gives states and school districts the opportunity to spend federal education funds in a variety of ways to improve student performance on standardized tests (USDOE, 2004b). NCLB outlines three provisions that provide greater fiscal flexibility to states and school districts.

The first flexibility provision of NCLB allows states and school districts to transfer the funds they receive under four major state grant programs: Teacher Quality State Grants, Educational Technology, Innovative Programs, and Safe and Drug-Free Schools (USDOE, 2004b). States and districts may transfer up to 50% of the funds they receive for these grants to any one of the programs or to Title I (USDOE, 2004b). Every state can direct federal funds to the program or programs that the state identifies as most likely to benefit from the funds.

The second flexibility provision of NCLB is the State Flexibility Demonstration Program. This program allows up to seven states to consolidate nearly all of their federal grant money, including Title I, for any educational purpose authorized under the ESEA. This provision also gives states greater flexibility in using the Title V innovation funds (USDOE, 2004b). According to NCLB, states interested in consolidating their federal funds must enter into 5-year performance agreements with the Secretary of Education to cover the use of the consolidated funds (USDOE, 2004b). Through this process, states can draw on larger reserves of federal funds to better address specific areas of need. NCLB establishes a similar program for local school districts through the Local Flexibility Demonstration Program.

The Local Flexibility Demonstration Program is the third flexibility provision of NCLB. This program allows up to 80 school districts to consolidate their funds from Teacher Quality State Grants, Educational Technology State Grants, Innovative Programs, and Safe and Drug-Free School Programs (USDOE, 2004b). School districts that participate in the Local Flexibility Demonstration Program enter into performance

agreements with the Secretary of Education to cover the use of the consolidated funds. The funds may be used for any ESEA authorized purpose (USDOE, 2004b). This gives school districts the ability to direct federal funds to areas of need, including providing professional support for teachers to implement scientifically verified teaching practices and programs.

NCLB Pillar 3-Proven Education Methods

The Proven Education Methods pillar mandates lawmakers direct federal funds to support educational practices and programs that research has proven effective. (USDOE, 2004a). The purpose of this pillar is to finance educational practices that have been shown to impact positively student learning. For example, NCLB endorses the Reading First program and the Early Reading First program. According to NCLB, these are scientifically-based instruction programs that will help students in preschool and the early elementary grades to learn how to read (USDOE, 2003b). Since these programs are considered scientifically-based, NCLB allocates federal funds to help teachers develop the skills necessary to implement the programs.

NCLB Pillar 4-More Choices for Parents

The purpose of the More Choice for Parents pillar is to provide educational choices to students attending schools that receive Title I funds and fail to meet state standards (USDOE, 2004c). NCLB provides students attending a school identified as Needing Improvement, Corrective Action, or Restructuring the opportunity to leave the school to obtain a higher quality education. Students from these schools may attend any

public school in the district that is making AYP, including public charter schools, regardless of the location of the school. NCLB requires districts pay the transportation costs, up to 5% of their total Title I funds, for these students (USDOE, 2004c).

NCLB provides additional opportunities for students attending schools labeled as Persistent Failures. The state identifies a school as a Persistent Failure when it fails to meet the state standards for 3 of the previous 4 years. Under NCLB, students attending these schools are permitted to use Title I funds to supplement educational services from outside sources. Students may obtain supplemental support from any public or private sector agency as long as the agency has met state standards and offers services specifically designed to help students meet the academic standards established by the state (USDOE, 2003c). NCLB requires districts to spend up to 20% of their Title I allocations to provide school choice and supplemental services to qualified students (USDOE, 2004b).

In sum, NCLB outlines four principles, called the Four Pillars of NCLB, to close the achievement gap between disadvantaged students and their peers. The Four Pillars of NCLB are Stronger Accountability for Results, More Freedom for States and Communities, Proven Education Methods, and More Choices for Parents (USDOE, 2004a). The first pillar, Stronger Accountability for Results, is particularly relevant to the current study. This provision mandates that states establish standards in language arts and mathematics and that they annually assess students in grades 3 through 6 on their ability to meet those standards. NCLB does not specify how states assess a student's ability to meet the state-established standards in language arts and mathematics. Each state must

enact education laws and policies to implement the requirements of NCLB. The next section of the literature review details how the state of Connecticut, which is the state of interest in the current study, implements the NCLB testing requirement in public elementary schools.

NCLB Implementation in Connecticut

Under NCLB, each state can develop and implement the specific educational policies that affect public school students in that state. Specifically, each state has the authority to control: the standards and assessments used to provide AYP definitions, including the definitions of advanced, proficient, and basic achievement levels; the elements of the AYP definition and major subgroups; the structure and timing of AYP reporting systems; the requirements of students with special instructional needs, such as alternative achievement standards for students with significant cognitive disabilities; AYP for unique schools, such as schools serving only grade levels for which assessments are not required; the definition of persistently dangerous schools; and the definition, including content and achievement standards, of highly qualified teachers (USDOE, 2005). In Connecticut, the governor and state legislature give the authority and responsibility for the implementation of these educational reforms to the State Board of Education through the General Statutes of Connecticut.

General Statutes of Connecticut

Chapter 163c of the General Statutes of Connecticut (2005) states, “Beginning in the 2005-2006 school year, each student enrolled in grades three to eight, inclusive, and

ten in any public school shall, annually, in April, take a state-wide mastery examination that measures the essential and grade-appropriate skills in reading, writing and mathematics.” The statute mandates that all public school students, with few exceptions, in the prescribed grades take the statewide mastery tests.

Students receiving special education services and English Language Learners (ELL) may be exempt from taking the traditional CMT. The statute requires a student receiving special education services to take the statewide mastery tests unless that student’s Planning and Placement Team (PPT) decides it is appropriate for the student to take an alternative assessment. The statute requires the State Board of Education, through the Department of Education, to determine the nature and content of the alternative assessment ("General Statutes of Connecticut Chapter 163c Education Evaluation and Remedial Assistance"). The statute requires English Language Learners take the statewide assessments except in two circumstances: if a student has been in school for 10 months or less, or if a student has been in school for more than 10 months and less than twenty months and scored below the level established by the State Board of Education on the linguistic section of the designated English mastery assessment administered in the month prior to the administration of the state-wide mastery examination ("General Statutes of Connecticut Chapter 163c Education Evaluation and Remedial Assistance").

The law requires the State Department of Education to oversee the creation, content, administration, and scoring of the statewide assessments under the supervision of the State Board of Education (Lohman, 2002). Thus, the State Department of Education mandates all public school districts in the state implement the Connecticut Mastery Tests

every spring for students in grades 3 through 6.

Connecticut Mastery Tests (CMT)

The Connecticut State Department of Education developed the Connecticut Mastery Tests (CMT) to assess student proficiency with the state curricular standards in reading, writing, and mathematics, and to determine if schools are making AYP. In accordance with the requirements of NCLB, students in grades 3 through 8 took the language arts and mathematics CMT for the first time in the spring of 2006 (CTDOE, 2005e). Since the focus of this study is on elementary school, the descriptions of the tests will be limited to the CMT reading, writing, and mathematics assessments taken by students in grades 3 through 6.

The Connecticut Department of Education, under the supervision of the State Board of Education, established the standards for AYP in public elementary schools. In order to make AYP, the whole school and each subgroup must meet the following CMT standards:

- 1 65% of students proficient in mathematics
- 2 57% proficient in reading
- 3 70% at or above the basic performance level in writing
- 4 95% must participate in the CMT testing (Sternberg, 2005).

In Connecticut, more than 81% of school districts met the requirements of AYP based on the 2006-2007 CMT (CTDOE, 2008a). All six of the elementary schools that participated in this study made AYP for the 2006-2007 school year. One of the elementary schools, CES, did not make AYP for the 2005-2006 school year (CTDOE, 2006c).

Language Arts CMT

The Language Arts CMT is divided into four subtests: Reading Comprehension, Degrees of Reading Power®, Editing and Revising, and Direct Assessment of Writing. The skills and concepts assessed through the four subtests are representative of and aligned with the content and performance standards in Connecticut's Language Arts Curriculum Framework (CTDOE, 2003a). The purpose of the tests is to assess students' ability to read and write.

Language Arts Subtest 1-Reading Comprehension

Reading Comprehension is the first subtest of the Language Arts CMT. The purpose of the Reading Comprehension subtest is to assess how well students can perform four reading skills: form a general understanding, develop interpretation, make connection to themselves and the text, and examine the content and structure of a passage (CTDOE, 2005d). The subtest is comprised of four passages that stem from three contexts for reading: reading for literary experience, reading for information, and (in grades 5 and 6 only) reading to perform a task. The passages represent a variety of cultures and ethnicities, interests of students from rural, suburban, and urban areas, and avoid stereotyping or bias towards racial, ethnic, gender, age, or religious groups (CTDOE, 2005d). Every Reading Comprehension subtest has four passages, which are differentiated by grade level. For example, the word count per passage for grade 3 is between 200 and 400 words, while for grade 6 it is between 550 and 750 words (CTDOE, 2005d).

Students in grades 3 through 6 take the Reading Comprehension subtest during

two 45-minute periods on two separate days. To complete the subtest students are required to read four passages and answer a combination of open-ended and multiple-choice questions. The number of open-ended and multiple-choice questions students answer varies slightly by grade level. For example, students in grade 3 have 24 multiple-choice questions and eight open-ended questions, while students in grade 6 have 22 multiple-choice questions and nine open-ended questions (CTDOE, 2005d).

The Reading Comprehension subtest is scored in two ways. The multiple-choice questions are scored electronically, and the open-ended questions are assessed by trained specialists (CTDOE, 2005d). The assessors use four 0-2 rubrics that are aligned with the four reading skills (forming a general understanding, developing interpretation, making reader/text connections, and examining the content and structure of a passage) assessed by the Reading Comprehension subtest (CTDOE, 2005d).

Language Arts Subtest 2-Degrees of Reading Power®

Degrees of Reading Power® (DRP®) is the second subtest of the Language Arts CMT. The purpose of the DRP® subtest is to assess the students' ability to understand what they read (CTDOE, 2005a). The DRP® subtest is a holistic measure of how well students understand the meaning of text. The subtest measures the process of reading rather than the products of reading (CTDOE, 2005a). The passages on the tests are similar to cloze exercises.

The DRP® subtest is comprised of non-fiction passages that vary in topic and length by grade level. Within each passage there are seven deleted words with seven accompanying multiple-choice items (CTDOE, 2005a). Students in grades 3 and 4 read

six passages and answer a total of 42 multiple-choice questions. Students in grades 5 and 6 read seven passages and answer 49 multiple-choice questions (CTDOE, 2005a).

Students in grades 3 through 6 take the DRP® subtest during one 45-minute period. To complete the subtest, students must read each passage and select the appropriate words, from a group of choices, to fill in each blank. In order to select the correct word, students must read and understand the passage. If any sentence with a blank is taken in isolation, any of the word choices make sense (CTDOE, 2005a). The DRP® subtest is scored electronically because it is comprised entirely of multiple-choice items.

Language Arts Subtest 3-Editing and Revising

Editing and Revising is the third subtest of the Language Arts CMT. The purpose of the Editing and Revising subtest is to assess specific skills associated with composing, revising, and editing written work. The subtest measures students' ability to identify errors of content, organization, and tone; syntax; word choice; capitalization; punctuation; grammatical usage; and spelling (CTDOE, 2005b).

The Editing and Revising subtest is comprised of passages that are representations of rough draft writing. The passages have errors embedded in the text. Each error has an associated multiple-choice question. Students are asked to select the answer that provides the appropriate correction (CTDOE, 2005b).

Students in grades 3 through 6 take the Editing and Revising subtest during one 60-minute time period. To complete the subtest, students are asked to read the passages, correctly identify the errors, and select the appropriate correction from a list of choices. The specific composing, revising, and editing skills are differentiated by grade level. For

example, students in grade 3 are expected to identify errors associated with supporting details and chronological order under the Content, Organization, and Tone strand. Under the same strand, students in grade 6 are expected to identify errors associated with topic sentence, supporting details, extraneous materials, chronological order, logical order, tone, and redundancy (CTDOE, 2005b). The Editing and Revising subtest is scored electronically because it is comprised entirely of multiple-choice questions.

Language Arts Subtest 4-Direct Assessment of Writing

Direct Assessment of Writing is the fourth subtest of the Language Arts CMT. The purpose of this subtest is to assess how well students can write the first draft of a paper. Students in grades 3 through 6 are given 45 minutes to plan, organize, and write a response to a prompt. The students are given one piece of paper to organize their thoughts and three pieces of paper to write the draft; additional pages are not scored. The modes of writing are differentiated by grade level. Students in grades 3 and 4 write narrative pieces, or pieces of fiction. Students in grades 5 and 6 write expository pieces, or they write to explain something to the reader (CTDOE, 2005f).

Two trained scorers assess each student's paper. They assess the papers holistically, which means that they score the papers on the strength of their organization and content, not on mechanics such as spelling, grammar, or punctuation (CTDOE, 2005f). Scorers use a rubric as a guide to score each paper between 1 point and 6 points depending on the overall strength of the paper. The two scores are added to give the paper its final score. For example, if one scorer gives a paper 4 points and another gives the same paper 5 points, the paper earns a final score of 9 points.

The results of all four subtests of the Language Arts CMT are reported to parents, schools, districts, and the state. The Connecticut Department of Education has set two achievement goals for the Language Arts CMT to determine if the school is making AYP. The first is a Reading Achievement goal. It is based on a combination of the Reading Comprehension subtest score and the DRP® score (CTDOE, 2001; 2005e). The second is a Writing goal. It is based on a combination of the Editing and Revising subtest score and the Direct Writing Assessment (CTDOE, 2001; 2005e).

The state of Connecticut assesses the reading and writing skills of public school students in grades 3 through 6 with the Language Arts CMT. The four sections of the Language Arts CMT (Reading Comprehension, DRP®, Editing and Revising, and Direct Assessment of Writing) give parents and teachers a comprehensive understanding of students' progress towards meeting the state-established academic standards in language arts.

Mathematics CMT

The Mathematics CMT assesses student performance on a range of grade-appropriate skills and concepts. The assessed skills and concepts are representative of and aligned with the content and performance standards in Connecticut's Mathematics Curriculum Framework, which are: Numerical and Proportional Reasoning, Geometry and Measurement, Working with Data-Probability and Statistics, and Algebraic Reasoning-Patterns and Functions (CTDOE, 2005g).

There are 25 mathematical strands, associated with the content and performance standards, which are assessed on the CMT. The tests are differentiated by grade level, so

not every strand is present on every CMT. For example, there are a total of thirteen strands listed under the Numerical and Proportional Reasoning content and performance standard. Students in grade 3 are assessed on 9 of those strands, while students in grade 6 are assessed on all 13 of the strands (CTDOE, 2005g). The length of the CMT is also differentiated by grade level.

Students in grades 3 and 4 take the mathematics section of the CMT during two 60-minute periods on two separate days. Students in grade 3 have a total of 76 multiple-choice items and 18 open-ended items, while students in grade 4 have 84 multiple-choice questions and 18 open-ended items (CTDOE, 2005g). Students in grades 3 through 6 are given rulers to use on the CMT. Students in grades 5 and 6 may use calculators on the CMT, while students in grades 3 and 4 may not (CTDOE, 2005g).

The Mathematics CMT is scored in two ways: the multiple-choice questions are scored electronically and the open-ended questions are scored by trained evaluators. The evaluators use three different rubrics depending on the type of question. The first rubric they use is a 0-1 point scale. Evaluators use this rubric for questions that are either correct or incorrect. The second rubric they use is a 0-2 point scale. Evaluators use this rubric for questions that require a more detailed response. A student that provides a complete response earns 2 points, a partial response earns 1 point, and an incorrect response earns 0 points. The third rubric the evaluators use is a 0-3 point scale. This rubric is used only for strand 25, Integrating Understanding questions. Students earn 3 points when their answers demonstrate a full and complete understanding of the concept. Students earn 2 points if they demonstrate a reasonable understanding of the concept. Students earn 1

point if they demonstrate a partial understanding and 0 points if they demonstrate minimal understanding of the concept (CTDOE, 2005g).

The results of the Mathematics CMT are reported to parents, schools, districts, and the state. The Connecticut Department of Education uses the goals it established for each of the 25 strands assessed on the Mathematics CMT to determine if schools make AYP (CTDOE, 2005g).

The state of Connecticut uses the Mathematics CMT to assess the mathematics ability of public school students in grades 3 through 6. The tests assess students' understanding of 25 mathematical strands organized under the five performance and content standards of Numerical and Proportional Reasoning, Geometry and Measurement, Working with Data-Probability and Statistics, Algebraic Reasoning-Patterns and Functions, and Integrating Understandings (CTDOE, 2005g). The Mathematics CMT gives parents, teachers, and administrators a comprehensive understanding of students' proficiency with the state-established mathematics standards required by NCLB.

The No Child Left Behind Act sets significant educational reform priorities for the states to implement, including annual assessment of students in grades 3 through 6 in reading, writing, and mathematics. The state of Connecticut meets the testing requirements of NCLB in public elementary schools by having almost all students in grades 3 through 6 take the annual Connecticut Mastery Tests. The statewide mastery tests assess students' understanding of a variety of grade-level appropriate language arts and mathematics skills and concepts that are aligned with state curricular standards. The

statewide mastery tests provide parents, teachers, and administrators with data about students' academic progress in public schools that they can use to meet the students' educational needs. The scores also inform parents about how well the school, specifically the teachers in the school, prepare their students for the CMT.

The testing mandates associated with NCLB have led to significant reforms in pedagogy, curricula, and assessment. Classroom teachers, through their instructional practices, have the primary responsibility for implementing the educational reforms (Lortie, 1975). One factor that may influence how well a teacher implements those reforms, and prepares students for the state-mandated assessments required by NCLB, is the teacher's perceived autonomy regarding issues of curricula and pedagogy. This factor is examined in detail in the next section of the literature review.

Perceived Teacher Autonomy

Perceived teacher autonomy is the teacher's sense that she or he controls her or his work environment (Pearson, 1995). The concept of perceived teacher autonomy in elementary and secondary schools stems from the tradition of academic freedom in American higher education (Hyman, 2002). Although there is no legal precedent guaranteeing academic freedom for teachers of kindergarten through 12th grade, many educators and their professional associations identify the freedom to teach as essential to student academic success (National Education Association, 2006; Nelson & Stanley, 2001).

In order to fully understand perceived teacher autonomy for the teachers of elementary and secondary grades, it is necessary to review the theoretical, historical, and

legal traditions of teacher autonomy in American education and to understand the research regarding teacher autonomy in the classroom. This section presents the relevant literature regarding perceived teacher autonomy.

Theoretical Framework for Perceived Teacher Autonomy

The theoretical roots of perceived teacher autonomy for elementary and secondary school teachers are grounded in the tradition of academic freedom in higher education (Hyman, 2002). Academic freedom allows university and college professors to develop their talents and capabilities, conduct research, and design and implement classroom practices without close administrative control or supervision (Brown, 1984; Hyman, 2002). Specifically, academic freedom addresses who may teach, what may be taught, how it shall be taught, and who may be admitted to study (Sackin, 1989).

The U.S. Supreme Court established the importance of academic freedom in higher education in the middle of the 20th century. In the 1957 case *Sweezy v. New Hampshire*, the Court supported the freedom to teach and learn in higher education. The Court wrote, “Teachers and students must always remain free to inquire, to study and to evaluate, to gain new maturity and understanding; otherwise our civilization will stagnate and die” (Strope & Broadwell, 1990, p. 31). The Court further solidified the importance of academic freedom in higher education in the 1967 case *Keyishian v. Board of Regents of the University of the State of New York*. The Court wrote:

Our nation is deeply committed to safeguarding academic freedom, which is of transcendent value to all of us and not merely to the teachers concerned. That freedom is therefore a special concern of the First Amendment, which does not

tolerate law that cast a pall of orthodoxy over the classroom. The classroom is peculiarly the “marketplace of ideas.” The Nation’s future depends upon leaders trained through wide exposure to that robust exchange of ideas which discovers truth out of a multitude of tongues [rather] than through any kind of authoritative selection (Strope & Broadwell, 1990, p. 31).

Thus, the Supreme Court held that academic freedom in higher education is the desirable end achieved by the enforcement of the rights and freedoms protected by the First Amendment (Alexander & Alexander, 2001). These rulings are informative for kindergarten through 12th grade education, but they are not directly applicable since they address issues of higher education.

There is no case law that supports an elementary or secondary teacher’s claim to academic freedom (Alexander & Alexander, 2001). Courts have found that school districts, not individual teachers, have the authority to determine course content, required materials, and the appropriateness of teaching techniques used in classrooms (Strope & Broadwell, 1990). However, courts have held that teachers maintain their First Amendment rights in school and that limits cannot be arbitrarily placed on their fundamental rights (Alexander & Alexander, 2001).

In the 1968 U.S. Supreme Court case *Pickering v. Board of Education*, the Court found that teachers’ constitutional right to speak freely on matters of public concern may only be overcome when the state has a compelling interest (Alexander & Alexander, 2001). The Court wrote, “In sum, we hold that, in a case such as this, absent proof of false statements knowingly or recklessly made by him, a teacher’s exercise of his right to

speak on issues of public importance may not furnish the basis for his dismissal from public employment” (391 U.S. 563, 88 S. Ct. 1731, p. 5).

The U.S. Supreme Court has established a lower standard of proof necessary for the government to justify the dismissal of a teacher for public speech on matters of private concern. In the 1983 Supreme Court case *Connick v. Myers*, the Court found that employees can be dismissed for public speech involving private concerns if the speech can be reasonably shown to undermine authority or disrupt working relationships (Yudof, Kirp, & Levin, 1992). Thus, teachers maintain their fundamental rights at school, but the state may impinge on those rights if the interests of the state outweigh the interest of the teacher (Alexander & Alexander, 2001).

Despite the confining legal parameters relating to academic freedom in K through 12 education, the concept of academic freedom is present in American elementary and secondary schools. The form of academic freedom in kindergarten through grade 12 education is not the same as the one common in American higher education. Teachers at higher education institutions have varying degrees of input on many, and sometimes all, aspects of academic freedom. Teachers who teach kindergarten through grade 12 do not have the same degree of academic freedom. They cannot make decisions regarding who teaches or who may be admitted for study. However, they have traditionally had considerable discretion regarding what is taught and how the information is taught (Sackin, 1989). They have enjoyed relative autonomy regarding issues of curriculum and pedagogy, which is why educational sociologists have described teachers as the primary people of influence and control in American classrooms (Waller, 1932; Lortie, 1975).

The testing associated with NCLB has changed the autonomy, actual or perceived, teachers have traditionally enjoyed. There is a broad spectrum of responses, from states, school districts, and schools, to state-mandated testing that result in varying degrees of actual and perceived autonomy. Some teachers are given time and resources to design test preparation exercises, either independently or with colleagues, that supplement the teachers' classroom practices. Some teachers are expected to make pedagogic and curricular decisions, based on their students' needs, to teach the material assessed on the state-mandated tests. Some teachers are provided with scripted instructional programs that they are mandated to implement with their students (Delpit, 2003). Even teachers in the same school district and/or school, who have similar actual autonomy over curricula and pedagogy, may have different perceptions of autonomy. These issues of perceived autonomy impact elementary and secondary education.

Perceived Teacher Autonomy in K-12 Schools

Perceived teacher autonomy is defined as the teacher's sense that she or he controls her or his work environment (Pearson, 1995). Research suggests that perceived teacher autonomy has an impact on several aspects of professionalism. Pearson and Moomaw (2005) found that as perceived teacher autonomy increased, empowerment and professionalism increased while on-the-job stress decreased. Street and Licata (1988) found a positive correlation between perceived teacher autonomy and teachers' perceptions of the effectiveness of their school's instructional supervision program. Perceived teacher autonomy has been identified as a primary determinant of job satisfaction with a lack of perceived autonomy being one of the most cited reasons

teachers gave when leaving the profession (Pearson & Hall, 1993; Kim & Loadman, 1994; Brunetti, 2001; Pearson & Moomaw, 2005). Many researchers and educators believe that giving teachers the actual autonomy to prescribe the best educational programs and approaches to use with their students will improve teacher motivation and job satisfaction and help attract and retain young teachers (Pearson & Hall, 1993; Pearson & Moomaw, 2006).

The studies by Pearson & Hall (1993), Kim and Loadman (1994), Pearson (1995) and Pearson & Moomaw, (2005) are particularly relevant to the current study. They examine the relationships between perceived teacher autonomy and teachers' attitudinal and professional participation variables, which may affect teacher perceived efficacy relating to the state-mandated tests associated with NCLB. In addition, they validate the Teaching Autonomy Scale (TAS), the instrument used to collect data in the current study.

Pearson & Hall (1993) wanted to create and validate a survey instrument that accurately determined teacher perceived autonomy. They used the 35-item Teaching Environment Scale created by Hall (1988) as the foundation for their instrument. They chose this instrument because the items elicited the degree of perceived autonomy in the following areas: selection of activities and materials, classroom standards or conduct, instructional planning and sequencing, and on-the-job decision making. They administered the instrument to 12 faculty members of the College of Education at the University of South Florida.

Pearson and Hall (1993) used SPSS's reliability program to estimate Cronbach's alpha for internal consistency. The total scale internal consistency coefficient was .93.

Reliability estimates for the 18 positive statements was .88; the reliability estimates for the 17 negative statements was .86. They selected the 20 items with the highest item-total correlations for use on the new instrument. The 20-item scale had an internal consistency coefficient of .91, retained a balanced positive-negative split, and elicited data regarding the same four aspects of perceived autonomy as the Teaching Environment Scale. The instrument was renamed the Teaching Autonomy Scale (TAS).

To determine the reliability and validity of the TAS, Pearson & Hall (1993) administered the instrument to 370 Florida public school teachers. Of the 370 possible participants, 204 successfully completed the survey. Twenty-two of the respondents taught elementary school, 37 taught middle school, and 145 taught high school.

Pearson & Hall (1993) analyzed the data and found that perceived teacher autonomy was not a single trait, but was composed of two dimensions: general teaching autonomy and curriculum autonomy. General teaching autonomy referred to issues of classroom standards of conduct and on-the-job discretion. Curriculum autonomy referred to issues of activity and material selection and instructional planning and sequencing. They found that the TAS was a reliable and valid measure of perceived teacher autonomy because the factors on the instrument were internally consistent, well-defined by the items, and logically consistent with the research on teacher autonomy. Pearson and Moomaw (2006) verified the two-dimension structure of perceived teacher autonomy and replicated the internal consistency reliability of the scores.

Pearson and Moomaw (2005) examined the relationship between perceived teacher autonomy and on-the-job stress, work satisfaction, empowerment, and

professionalism. They hypothesized that teachers with high perceived autonomy would experience less on-the-job stress, greater work satisfaction, perceptions of being empowered, and high degrees of professionalism. They used the Teaching Autonomy Scale (TAS) to collect data from 171 teachers in Florida. Thirty-seven of the teachers taught elementary school, 88 taught middle school, and 46 taught high school.

Pearson and Moomaw (2005) analyzed the data and found relationships between perceived teacher autonomy and teachers' attitudinal and professional participation variables. They found that as perceptions of curriculum autonomy increased on-the-job stress decreased. They also found that as perceptions of general teaching autonomy increased so did perceptions of empowerment and professionalism.

Based on these findings, Pearson and Moomaw (2005) concluded that administrators should promote teacher autonomy. They suggested perceptions of general teaching autonomy were consistent with the need for teachers to control their work environments and have personal on-the-job decision making authority. They suggested that perceptions of curriculum autonomy were consistent with the need for teachers to have authority to make decisions regarding the selection of learning exercises, materials, and instructional planning.

Kim and Loadman (1994) conducted a research project to investigate predictors of teacher job satisfaction. In total, 2,054 classroom teachers from five states successfully completed a survey that elicited information about six areas: employment history, ratings of teacher preparation program quality, ratings of professional knowledge, ratings of competence in selected teaching skills, views of teaching, and demographic information.

Kim and Loadman (1994) analyzed the data and identified seven intrinsic and extrinsic factors related to teacher job satisfaction. One of the intrinsic variables was professional autonomy. They found that teachers with high perceptions of autonomy were more likely to use their judgment to guide instructional work with students and were more satisfied with their jobs than teachers with low perceived autonomy.

Pearson (1995) identified relationships between attitudinal and work-related variables and teacher autonomy. She hypothesized that perceived teacher autonomy could be predicted once the relationships between specific variables and teacher autonomy were identified. She had 416 teachers participate in the study, of which 186 taught elementary school students, 97 taught middle school students, and 110 taught high school students. The remaining 29 taught in non-traditional settings in the schools.

Pearson (1995) used a survey to collect data for the study. The survey, called the Survey of Teacher Characteristics and Activities, was divided into six sections. The first section asked participants to report demographic information. The second section asked teachers to describe their working conditions, including variables like paperwork load, instructional load, and job stress. The third section recorded teachers' perceptions of classroom autonomy. The fourth section asked teachers to report on their attitudes towards various aspects of teaching, including students and parents. The fifth section asked teachers about their involvement with professional organizations. The sixth section asked teachers about reasons for leaving the profession.

Pearson (1995) analyzed the data and found that teachers with high perceived autonomy were more satisfied with their profession and had more positive attitudes

toward students. The results suggested that a lack of perceived autonomy was one of the primary reasons teachers gave for leaving teaching. Pearson did not find academic ability, years of teaching experience, gender, age, or quality of professional training to have a significant bearing on perceived teacher autonomy. Based on these data, Pearson concluded, “Autonomy may prove to be a critical perception to examine when measuring the success of [school] reforms” (p. 84).

Perceived teacher autonomy impacts teaching and learning. Studies show perceived teacher autonomy to have a positive relationship with teachers’ professional satisfaction and attitudes towards students (Kim & Loadman, 1994; Pearson, 1995; Pearson & Moomaw, 2005). This is relevant to the current study because the amount of actual or perceived autonomy teachers have in the development and implementation of the test-preparation practices associated with state-mandated tests varies. Elementary language arts and mathematics teachers experience a range of guidance regarding how best to prepare their students. This variation may affect teacher perceptions of autonomy, which may have an impact on teacher perceptions of how well they prepare their students for the state-mandated tests associated with NCLB.

Perceived Teacher Efficacy

A teacher’s belief in his or her ability to affect positively student learning is called teacher self-efficacy, or perceived teacher efficacy (Ross, 1994). Perceived teacher efficacy is the term used here because this study is concerned with teachers’ perceptions of efficacy rather than their actual efficacy. Perceived teacher efficacy stems from the theory of self-efficacy, which is defined as a person’s belief in the ability to organize and

execute a course of action required to produce a certain outcome (Bandura, 1997). As the literature presented in this section describes, perceived teacher efficacy is relevant to NCLB because it impacts several aspects of classroom culture, including teachers' willingness to try instructional reforms and student achievement. This section of the literature review presents the theoretical foundation and relevant literature regarding perceived teacher efficacy.

Theoretical Framework for Perceived Teacher Efficacy

The theoretical roots of perceived teacher efficacy are grounded in a variety of sources, with the greatest contributions coming from Albert Bandura's (1986a) Social Cognitive Theory (Henson, 2001; Ross, 1994; Scribner, 1998). While Social Cognitive Theory is not education specific, educational researchers have taken the principles of Social Cognitive Theory and applied them to teaching and learning contexts. Therefore, it is important to have an understanding of Social Cognitive Theory when examining perceived teacher efficacy.

Bandura (2001) developed Social Cognitive Theory as an alternative to two prevalent theories of human behavior. The first theory suggested that human motivation was based on an input-output model. According to this theory, human behaviors were determined and shaped solely by environmental stimuli. People were born as "blank slates" that were molded entirely from life experiences. The second theory held that human motivation was based on an input-linear throughput-output model in which human behavior was based on innate responses to stimuli. In this theory, the brain was conceptualized as a computer that took information and initiated solutions based on

preordained rules.

Bandura (1989) was not satisfied with either of these theoretical approaches to human behavior. He believed they were too simplistic in their explanation of human motivation and behavior. He did not believe people were “mechanical conveyors of animating environmental influences” or “autonomous agents” (p. 1176).

Bandura (2003) based Social Cognitive Theory on his belief that people were “anticipative, purposive, and self-evaluating proactive regulators of their motivation and actions” (p. 87). Rather than being the product of one factor, such as environmental stimuli or innate drives, he believed human behaviors were the product of a series of complex interactions between several factors (Henson, 2001). He described human agency, or a person’s ability to make things happen, as a function of the dynamic interplay among environmental influences, behavior outcomes, and internal personal factors such as cognitive and biological processes (Bandura, 1986b, 1991). Bandura called this interaction triadic determinism because of the reciprocal relationship among the three factors in determining human agency (Bandura, 2001).

Bandura (2001) did not believe that one mode, or type, of agency was sufficient to describe human motivation because of the diverse causes of behavior. He described agency as resulting from the “endowments, belief systems, self-regulatory capabilities, and distributed structures and functions through which personal influence is exercised” (p. 2). Therefore, Bandura (2002) distinguished three modes of human agency: direct personal agency, proxy agency, and collective agency.

Direct personal agency is a person’s independent intentional actions designed to

affect themselves and their environments. Proxy agency is when one person attempts to get another person, usually someone with power or resources, to secure an outcome that the individual desired. Collective agency is when a group of people work together to secure an outcome that an individual cannot accomplish independently. Through these modes of agency, people are able to intentionally interact with their environments. Therefore, through triadic determinism and the resulting agency, people make causal contributions to their own motivations and actions, and they are producers as well as products of their environments (Pajares, 2004).

Self-Efficacy

Self-efficacy, defined as a person's belief in the ability to organize and execute the course of action necessary to produce certain outcomes, is the most important personal factor regarding human motivation (Bandura, 1995; Pajares, 2002). Bandura (1995) describes four factors that contribute to a person's self-efficacy: mastery learning, vicarious experiences, social persuasion, and psychological and emotional states. Mastery learning refers to the skills necessary to manage the dynamic circumstances of life. Vicarious experiences are learning opportunities that occur by observing successful practice. Social persuasion is the reinforcement received from other people. Psychological and emotional states refer to personal factors, like mood and cognitive ability, which affect how a person processes information (Scribner, 1998).

Self-efficacy beliefs provide the foundation for human motivation and personal accomplishment by affecting the way people think about themselves, how they face difficulties, the state of their emotional health, their vulnerability to stress and depression,

and their decision making process. Self-efficacy beliefs have a powerful effect on motivation and behavior, particularly the ability to change behavior, and they are central to a person's success or failure (Bandura, 1990, 1995; Henson, 2001; Pajares, 2002).

Self-efficacy influences behavior through four processes: cognitive, motivational, affective, and selection (Bandura, 1993). Cognitive processes allow for the creation of goals and a commitment to the achievement of those goals. Motivational processes link self-efficacy to controllable attributes rather than innate attributes. Affective processes refer to coping strategies that allow people to disregard negative thoughts, often caused by stress, which could lower performance. Selection processes refer to the choices people make about the activities and environments in which they operate. People with high self-efficacy are more likely to engage in behaviors that support success, such as setting goals and working to attain them, attributing failure to lack of effort rather than ability, utilizing stress reducing mechanisms to improve performance, and being committed to their profession and regularly engaging in appropriate work-related activities (Ross, 1994). The behaviors associated with high self-efficacy are important in all work settings, including elementary schools.

Perceived Teacher Efficacy

Teacher self-efficacy, called perceived teacher efficacy here, refers to the extent to which teachers believe their actions will have a positive effect on student achievement (Ross, 1994). Perceived teacher efficacy is comprised of two distinct types of efficacy: general teaching efficacy and personal teaching efficacy (Gibson & Dembo, 1984; Hoy & Woolfolk, 1993).

General teaching efficacy refers to an individual teacher's belief that the collective ability of the teacher population, as a whole, is limited by factors beyond the school's control (Hoy & Woolfolk, 1993). For example, a teacher with low general teaching efficacy thinks that teachers have little chance of helping students learn difficult concepts if those students come from homes that are not supportive of academics. A teacher with high general teaching efficacy thinks that teachers can help students learn difficult concepts regardless of the students' home environments. In other words, a teacher with low general teaching efficacy believes that some students cannot or will not learn in school no matter what the students' teachers do in the classroom. A teacher with high general teaching efficacy believes that all students are capable of learning if the students' teachers have a repertoire of skills to help the student access new knowledge (Ashton & Webb, 1986).

Personal teaching efficacy refers to a teacher's belief that he or she will be able to perform actions that lead to student learning (Hoy & Woolfolk, 1993). Teachers' perceptions of their personal teaching abilities influence their instructional choices (Ashton & Webb, 1986). A teacher with low personal teaching efficacy will likely avoid situations in which they may not succeed, while a teacher with high personal efficacy will likely set ambitious goals and pursue them despite difficulties (Ashton & Webb, 1986; Caprara, Barbaranelli, Borgogni, & Steca, 2003).

General teaching efficacy and personal teaching efficacy contribute to a teacher's efficacy perceptions. Perceived teacher efficacy is an important factor to consider when implementing school reforms. Research suggests that perceived teacher efficacy has an

impact on teacher competence and student achievement (Ashton & Webb, 1986; Ross, 1995).

Perceived Teacher Efficacy and Teacher Competence

Several studies suggest there is a relationship between perceived teacher efficacy and teacher competence. Teacher competence is defined here as knowledge of students, knowledge of content and curriculum, learning environment, respect for diversity, instructional resources, meaningful applications of knowledge, multiple paths to knowledge, assessment, family involvement, reflection, and contributions to the profession (National Board for Professional Teaching Standards, 2001). For example, studies indicate a relationship between high perceived efficacy and teachers' willingness to adopt innovations in the classroom (Guskey, 1988; Ghaith & Yaghi, 1997; Charambous, C., Philippou, G., & Kyriakides, L., 2004), teachers' likelihood to set more ambitious goals (Bandura & Locke, 2003), teachers' planning and organizational practices (Allinder, 1994), teachers' sense of personal responsibility for student learning (Ashton & Webb, 1986), and administrators' ratings of teacher competence (Ross, 1995). The studies by Guskey (1988), Ghaith and Yaghi (1997), and Charambous et al. (2004) are particularly relevant to the current research because they look at the relationship between perceived teacher efficacy and teachers' reactions to instructional reforms, such as the ones associated with the testing requirement of NCLB.

Guskey (1988) sought to determine the relationship between certain teacher perceptions, including perceived teacher efficacy, and teacher attitudes towards implementing new instructional practices. He collected data from 114 elementary and

secondary teachers for the study with two questionnaires. The first questionnaire, called the Responsibility for Student Achievement scale (Guskey, 1981), measured perceived teacher efficacy. The second questionnaire, a modified version of the Rand Corporation's Change Agent Study (Berman & McLaughlin, 1977), measured perceived teacher efficacy, teacher attitudes toward teaching, teachers' self-concept, and teachers' attitudes toward the implementation of new instructional practices. The questionnaires were administered to the teachers after a one-day presentation and discussion of theory and application of the new instructional practices.

Guskey (1988) analyzed the data and concluded that there was a "fairly strong and statistically significant relationship" between perceived teacher efficacy and teachers' attitudes toward the implementation of new instructional practices (p. 67). He found that teachers with high perceived efficacy generally rated new instructional strategies as important, congruent with their present teaching practices, and less difficult to implement than teachers with low perceived efficacy. He also found that teachers with high perceived efficacy "generally liked teaching more and expressed greater confidence in their teaching abilities" than teachers with low perceived efficacy (p. 67).

Guskey (1988) theorized that teachers with high perceived efficacy were more receptive to new instructional practices than teachers with low efficacy perceptions. He noted that the results of his study were consistent with the findings of Mann (1986), who found teachers who need improvement the least were the first to become involved in new programs, while teachers in need of improvement generally remained uninvolved.

Ghaith and Yaghi (1997) investigated the relationships among teachers'

experience, perceived teacher efficacy, and reactions to instructional reforms. They gathered data from 16 middle school teachers and 9 high school teachers at a four-day staff development program conducted at the American University of Beirut, Lebanon. The teachers involved in this study were not teaching in America at the time of the study.

Ghaith and Yaghi (1997) used three questionnaires, administered to the teachers at the end of the workshop, to collect data for the study. They collected demographic information, including level of education and years teaching experience, with the first questionnaire (Ghaith & Yaghi, 1997). They collected perceived teacher efficacy information with the second questionnaire (Gibson & Dembo, 1984) and they assessed teachers' attitudes towards instructional innovation with the third questionnaire (Guskey, 1988).

Ghaith and Yaghi (1997) analyzed the data and concluded that there was a statistically significant relationship between perceived teacher efficacy and teachers' reactions to instructional innovation. Specifically, the "findings of this study indicate that teachers with high sense of personal teaching efficacy consider [educational reforms] as more congruent with their present practices, less difficult to implement, and very important" (p. 456). The researchers acknowledged that their findings corroborated the findings of Guskey (1988) and that "this suggests that teachers with high sense of personal teaching efficacy are more likely to implement instructional innovations" (p. 457).

Charambous, Philippou, and Kyriakides (2004) were interested in studying the effects of elementary school teachers' efficacy perceptions on their reactions to a new

problem-solving mathematics curriculum. They had 151 fourth, fifth, and sixth grade teachers from 27 rural and urban elementary schools in Cyprus to complete a questionnaire; the teachers were not teaching in America at the time of the study. The questionnaire was developed by the researchers, using data from perceived teacher efficacy questionnaires (Nielsen & Moore, 2003) and the Concerns Based Adoption Model (McKinney, Sexton, & Meyerson, 1999). The researchers administered the questionnaire to the teachers after the teachers participated in professional development sessions on the new problem-solving mathematics curriculum.

Charambous et al. (2004) analyzed the data and found that perceived teacher efficacy played an important role in the implementation of classroom reforms. They wrote, “Teachers holding higher [efficacy perceptions] in using the reform model were found to experience less worries about issues related to the management of the reform and the influence of the reform on student achievement” (p. 205). They acknowledged that their findings regarding the relationship between perceived teacher efficacy and teachers’ attitudes towards instructional reforms were consistent with the findings of previous research (p. 205).

The findings of Guskey (1988), Ghaith and Yaghi (1997), and Charambous et al. (2004) support the theory that perceived teacher efficacy is related to teachers’ willingness to implement instructional reforms. This is significant to the present study because research suggests that the state-mandated standardized tests lead to pedagogic and curricular changes (Clarke et al, 2003). Teachers feel pressure to change classroom practices to prepare students for state-mandated achievement tests (Hoffman, Assaf, &

Paris, 2001). Therefore, it is important to make certain the curricular and pedagogic changes resulting from the state-mandated tests are beneficial to the students and that teachers have high perceived efficacy regarding those changes.

Perceived Teacher Efficacy and Student Achievement

Research suggests that teacher perceptions of efficacy affect student achievement in language arts, mathematics, and social studies (Ashton & Webb, 1986; Ross, 1992). In addition, research suggests that high perceptions of teacher efficacy lead to increased student motivation (Ashton & Webb, 1986), improved student self-direction (Rose & Medway, 1981), and improved student attitudes about school (Miskel, McDonald, & Bloom, 1983). The study by Ashton and Webb (1986) is particularly relevant to the present study because of the relationships between perceived teacher efficacy and student achievement in mathematics and language arts, the two areas assessed by the state-mandated achievement tests.

Ashton and Webb (1986) conducted a study to determine if perceived teacher efficacy had an impact on student academic achievement. They selected 48 teachers of basic skills in mathematics and communications (language arts and reading) from four public high schools in southeastern American communities to participate in the study. They collected data on student mathematical and communication abilities at the beginning and end of the study with the mathematics, language arts, and reading subtests of the Metropolitan Achievement Test. They measured perceived teacher efficacy through a questionnaire that was completed by the teachers at the beginning of the study. They obtained classroom process data through a series of three focused classroom

observations.

Ashton and Webb (1986) analyzed the data and wrote, “Our findings strongly support the hypothesis that teachers’ sense of efficacy is related to student achievement [and] that teachers’ efficacy attitudes are situation-specific” (p. 138). They found student mathematics achievement to be significantly related to teachers’ general teaching efficacy, and they found students’ language arts achievement significantly related to teachers’ personal teaching efficacy. They theorized that perceived teacher efficacy was a situation-specific variable, dependent on several factors including teacher beliefs about the subject being taught and the students in the class.

Ashton and Webb (1986) attributed the relationship between mathematics achievement and general teaching efficacy to cultural beliefs about mathematical ability and teacher doubts about their own ability to learn mathematics. Based on those beliefs, teachers working with low-achieving students in mathematics were more likely to have the low efficacy belief that those students could not learn mathematics. Therefore, teacher beliefs about the efficacy of mathematics instruction may be the most important efficacy belief in determining student achievement in mathematics. This was markedly different than the efficacy beliefs associated with language arts achievement.

Ashton and Webb (1986) attributed the relationship between language arts achievement and personal teaching efficacy to teacher beliefs about language arts instruction. They theorized that teachers were less likely to have low efficacy beliefs regarding language arts instruction than mathematics instruction. Thus, language arts teachers’ perceived competence was the most important efficacy factor in determining

student achievement in language arts.

The findings of Ashton and Webb (1986) support the theory that perceived teacher efficacy is related to student achievement in mathematics and language arts. Their findings suggest that language arts and mathematics teachers with high perceived teacher efficacy have students who perform better in those subjects. This is significant to the present study because NCLB mandates that students in grades 3 through 6 be assessed annually in mathematics and language arts. The stakes associated with these exams are high for students, teachers, and administrators. Students need the reading, writing, and mathematics skills to succeed in life. Teachers and administrators need students to perform well on the state-mandated tests or their schools may face sanctions. Therefore, it is imperative to identify ways to promote and maintain language arts and mathematics teachers' perceived efficacy.

Bandura's (1986a) Social Cognitive Theory describes human agency as the product of triadic determinism, or the interactions among environmental influences, behavior outcomes, and internal personal factors such as motivation. The most important personal factor affecting human motivation is self-efficacy, which is a person's belief in her or his ability to organize and execute a course of action required to produce a certain outcome. Teacher self-efficacy, called perceived teacher efficacy, has been found to affect several aspects of education. The research of Guskey (1988), Ghaith and Yaghi (1997), and Charambous et al. (2004) suggest that there is a positive relationship between perceived teacher efficacy and teacher willingness to adopt educational reforms. The research of Ashton and Webb (1986) suggests a positive relationship between perceived

teacher efficacy and student achievement in mathematics and language arts. These findings are significant to the present study because they underscore the importance of perceived teacher efficacy in relation to state-mandated tests associated with NCLB. The findings suggest that teachers with high perceived efficacy are more willing to implement new instructional strategies in mathematics and language arts, the two areas currently assessed in elementary grades on the state-mandated tests. This is particularly relevant since the majority of teachers report changing their classroom practices in response to state-mandated testing (Clarke et al., 2003).

The Influence of Perceived Teacher Autonomy on Perceived Teacher Efficacy

As has been previously described, research suggests that teacher perceptions of autonomy and efficacy independently impact teaching and learning. What is less clear is whether perceived teacher autonomy has an impact on perceived teacher efficacy. One study, conducted by Raudenbush, Rowan, and Cheong (1992), identified a relationship between perceived teacher autonomy and perceived teacher efficacy in high school teachers. Their findings are relevant to the current study.

Perceived Teacher Autonomy and Perceived Teacher Efficacy

Raudenbush, Rowan, and Cheong (1992) were interested in identifying factors that influenced teacher efficacy. They hypothesized that teacher efficacy was contextually situated and that changes in teaching circumstances would result in changes in perceived teacher efficacy. They collected data with a questionnaire from 315 teachers of academic subjects (English, mathematics, science, and social studies) from 16 urban

and suburban high schools in California and Michigan. The purpose of the questionnaire was to gather information about intra-teacher and inter-teacher efficacy. Intra-teacher efficacy referred to variations in perceived efficacy experienced by a given teacher across the classes he or she teaches. Inter-teacher variance referred to variations in perceived efficacy among teachers. The questionnaire asked teachers to report their efficacy perceptions for each class they taught, provide a description of each class, answer personal and professional background questions, and describe the organizational setting in which they worked.

Raudenbush, Rowan, and Cheong (1992) analyzed the data and concluded that contextual factors influenced intra-and inter-teacher efficacy. They identified student ability and level of teacher preparation as two factors that influenced intra-teacher efficacy. Greater student ability and higher levels of class preparation promoted greater perceived teacher efficacy. They identified teacher autonomy as a factor related to inter-teacher efficacy. They wrote, “We found that teachers who reported higher levels of control over instructional conditions...reported higher mean levels of perceived self-efficacy” (p. 165). Specifically, teachers who had the freedom to manipulate issues of pedagogy and classroom organization, and were given time to collaborate with colleagues, were more likely to feel that they successfully taught their students.

Raudenbush, Rowan, and Cheong (1992) theorized that school organizational reformers could use this data to enhance perceived teacher efficacy. They wrote, “The evidence suggests that teachers’ increased control over their working conditions and increased opportunities for collaboration with other teachers can enhance their perceived self-

efficacy” (p. 166).

The findings of Raudenbush, Rowan, and Cheong (1992) are relevant to the current study because they suggest a positive relationship between teacher perceptions of autonomy and perceptions of efficacy. Based on these findings, one can hypothesize that teachers with high perceived autonomy regarding the development and implementation of preparation practices for the state-mandated tests associated with NCLB will have higher perceived efficacy than teachers with low perceived autonomy. This study examines that hypothesis.

Conclusion

People have been working to advance the educational opportunities of students of color and economically disadvantaged students for many years. Federal initiatives, such as the Elementary and Secondary Education Act and its most recent authorization, the No Child Left Behind Act, have allocated funds and mandated educational reforms for public elementary schools in every state. While these laws and reforms have improved the educational opportunities for many American students, there is a persistent achievement gap between black and Hispanic students and their white and Asian peers, and between economically disadvantaged students and economically stable students (NCES, 2007). The No Child Left Behind Act attempts to ameliorate this by incorporating some of the recommendations presented in *A Nation at Risk*, including the establishment of rigorous academic standards and the use of standardized tests to assess student performance towards mastering those standards.

Research suggests that teachers feel pressure to prepare students for the state-

mandated tests, resulting in pedagogic and curricular changes. It is unknown how much autonomy teachers perceive they have over the educational changes designed to prepare students for the state-mandated tests. It is also unknown if perceptions of autonomy impact teachers' perceptions of their ability to prepare students for the tests, although one study suggests that there is a positive correlation between perceived teacher autonomy and perceived teacher efficacy. Teacher perceptions of autonomy and efficacy are important factors to consider when designing test preparation programs. Several studies suggest a relationship between teacher perceptions of autonomy and efficacy and student achievement in mathematics and language arts and teacher satisfaction. The current study examines how perceived teacher autonomy affects perceived teacher efficacy regarding state-mandated tests associated with NCLB.

CHAPTER 3: RESEARCH DESIGN

The purpose of this chapter is to describe the methodology and the rationale for the current research study. The chapter is divided into five sections. The first section reiterates the research question. The second section explains the choice of research method and the rationale for the methodology, and it describes the survey instrument and the interview protocol. The third section presents the demographics of the schools in the study and information about the sample. The fourth section reviews the pilot test and the resulting modifications implemented in the actual study. The fifth section explains the data gathering and reporting procedures.

Research Question

How do perceptions of autonomy affect suburban elementary school teachers' perceptions of efficacy regarding state-mandated testing?

Research Methodology

This study employed a mixed-method research design to generate the data necessary to explore the research question. The researcher chose this methodology because mixed-method research capitalizes on the strengths of quantitative and qualitative research (Johnson & Onwuegbuzie, 2004).

The specific mixed-method approach employed in this study was an equivalent status design, which used a quantitative and a qualitative approach equally to understand the relationship between perceived teacher autonomy and perceived teacher efficacy regarding state-mandated standardized testing (Creswell, 1995). This was the most

appropriate research methodology for the study because of the need for deductive and inductive logic to understand the trends in perceived teacher autonomy and perceived teacher efficacy regarding state-mandated standardized testing and the reasons for those trends (Krathwohl, 2004).

The researcher used the quantitative information to examine the relationships among perceived teacher autonomy and curricula and pedagogy and gender; years of teaching experience; grade taught; and level of education. The researcher used the qualitative data to determine whether an individual teacher's perceptions of autonomy affected her or his perceptions of efficacy when preparing their students for the state-mandated tests.

The quantitative data were collected with the Teaching Autonomy Scale (TAS) (Pearson & Hall, 1993). This instrument was selected for use in this study because it was directly applicable to the research question and the results of prior studies suggested that it was a reliable and valid research tool to measure the teacher autonomy construct (Pearson & Hall, 1993; Pearson & Moomaw, 2006). The TAS was comprised of 20 items that used a 4-point Likert scale. It had split positive and negative questions about teacher perceptions of autonomy and the items were coded to reflect high scores for positive responses (Pearson & Hall, 1993).

Participants responded to each item by selecting definitely true, more or less true, more or less false, or definitely false. Total autonomy scores were determined by assigning a point value for each response on the TAS and summing the values. High autonomy responses earned 4 points; moderately high autonomy responses earned 3

points; moderately low autonomy responses earned 2 points; low autonomy responses earned 1 point. High scores on the TAS indicated high teacher perceptions of autonomy. The TAS is presented in Appendix A.

Pearson and Hall (1993) completed a factor analysis and identified two components of teacher autonomy: curriculum autonomy and general teaching autonomy. Curriculum autonomy referred to the content and skills taught in class. General teaching autonomy referred to methods and strategies used to teach the content to the students. Twelve items on the TAS addressed general teaching autonomy and eight addressed curriculum autonomy. Pearson and Moomaw (2006) confirmed the findings of Pearson and Hall's 1993 study.

The qualitative data were collected through semi-structured individual telephone interviews. The researcher selected a semi-structured format because it minimized interviewer effects on the participant, reduced the time of the interview, and presented patterns of responses when patterns were present (Krathwohl, 2004). The questions were open-ended, and the order of presentation was determined prior to the interviews. The researcher began with broad questions that narrowed in focus as the interviews progressed. This format allowed the researcher to obtain specific information relevant to the research question while allowing for flexibility in answering the questions (Krathwohl, 2004).

The researcher decided to use individual interviews because of the sensitivity of the topic. Teachers may not have been as forthcoming when answering the questions if they were being interviewed with their peers because of the stakes associated with the

state-mandated exams. The researcher selected telephone interviews because they tend to generate high response rates, facilitate success with open-ended questions, avoid contamination by other people, and allow for quick implementation of the interviews (Dillman, 1978). The interview protocol is presented in Appendix D.

Sample

The population of interest for this study was suburban public elementary school teachers who prepare students for the state-mandated language arts and mathematics tests required by NCLB. The sample was taken from the six public elementary schools in a suburban Connecticut city, where the participants were all teachers of language arts and/or mathematics in grades three, four, five, or six at the time the data were collected.

There were three reasons why this particular suburban Connecticut school district was selected for this study. First, all of the public elementary schools in the district included grade six, which allowed for a larger and more representative sample of suburban elementary school teachers. Second, there was broad variation in student economic and ethnic/racial diversity among the schools. Third, the district regularly used SurveyMonkey.com, the same electronic survey service used in this study, to solicit information from the teaching faculty. This increased the likelihood that participants would successfully complete the quantitative portion of the study, which was significant because the average response rate for web-based surveys is 30% to 50% (Thomas, 2004).

All of the elementary schools in this study taught kindergarten through grade 6, but they varied in size and student demographics. The enrollment for grades 3 through 6, student demographics, NCLB subgroups, and school AYP status data are described in

Tables 1 and 2 (CTDOE, 2008b).

Table 1

Student Demographics for the 2006-2007 School Year

School	Enrollment grades 3-6	American Indian	Asian	Black	Hispanic	White
AES	258	2 (<1%)	10 (3.9%)	2 (<1%)	4 (1.5%)	240 (93%)
BES	409	0	9 (2.2%)	7 (1.7%)	12 (2.9%)	381 (93%)
CES	221	1 (<1%)	7 (3.2%)	20 (9%)	45 (20.4%)	148 (66.9%)
DES	291	1 (<1%)	16 (5.5%)	7 (2.4%)	20 (6.9%)	247 (84.9%)
EES	353	2 (<1%)	3 (<1%)	4 (1.1%)	7 (1.9%)	337 (95.5%)
FES	184	0	9 (4.9%)	5 (2.7%)	14 (7.6 %)	156 (84.8%)

Table 2

NCLB Subgroups and School AYP for 2006-2007 School Year

School	Enrollment Grades 3-6	Students with Disabilities	ELL	Economically Disadvantaged	2006-2007 AYP Status
AES	258	13 (5%)	2 (<1%)	19 (7.4%)	Achieved
BES	409	26 (6.4%)	0	16 (3.9%)	Achieved
CES	221	18 (8.1%)	11 (5%)	113 (51%)	Achieved
DES	291	15 (5.2%)	9 (3.1%)	34 (11.7%)	Achieved
EES	353	22 (6.2%)	5 (1.4%)	12 (3.4%)	Achieved
FES	184	12 (6.5%)	3 (1.6%)	30 (16.3%)	Achieved

The sample consisted of 104 participants: 27 taught third grade students, 30 taught fourth grade students, 23 taught fifth grade students, and 24 taught sixth grade students. In accordance with the Boston College Human Subjects Protection Policy, the researcher explained that participation was voluntary and that the decision to participate would have no bearing on relationships with the school, the city's Board of Education, or Boston College. He assured potential participants that participants' names would not be disclosed and that the information they provided would be kept confidential. He explained the data gathering procedure, outlined the study time line, and asked participants to give their consent before the first part of the data collection process, which consisted of completing an electronic survey. He distributed copies of the consent form to all potential participants.

Pilot Tests

The survey instrument was used in a pilot test and the interview protocol was used in two pilot tests. The researcher recruited five teachers from another suburban Connecticut school district for the pilot study. He selected the school district because it had similar demographics to the school used in the study. The five participants taught mathematics and language arts to fifth grade students. All five participants completed the TAS and four participated in follow-up interviews.

The researcher uploaded the TAS, along with the consent form, onto the SurveyMonkey.com service and he emailed the link to the five pilot study participants. Participants were asked to read about the project and give consent to participate in the pilot study; provide their gender, age, years of teaching experience, highest degree

earned, and grade currently teaching; and complete the 20 items on the TAS. All of the participants successfully completed the survey. The scores were 57, 55, 54, 51, and 49. The mean total autonomy score was 53.2, the median was 54, the range was 8, the variance was 10.2, and the standard deviation was 3.19.

After the pilot study participants completed the survey, the researcher solicited feedback about the process, including ease of use and applicability of the questions to the research question. Based on the participants' responses to the items and their feedback about the TAS and the way it was presented on the web site, the researcher felt confident that the TAS was an appropriate tool to gather data on teachers' perceptions of their control over curricula and pedagogy. The researcher made no changes to the TAS or the information explaining it on SurveyMonkey.com.

The interview protocol was initially pilot tested with two participants selected from the five who participated in the pilot study. The researcher chose the two participants because of the difference in their total autonomy scores. The first participant selected for a telephone interview had a total autonomy score of 49 and the second participant had a total autonomy score of 57.

The two participants responded differently to the item, "The scheduling of use of time in my classroom is under my control." The first participant responded "definitely false" and the second participant responded "definitely true." This was interesting because the two teachers taught the same grade in the same school, but they had very different perceptions of the level of control they had over instructional time. The researcher explored the reasons for the different autonomy perceptions through telephone

interviews. He contacted the two participants via email and arranged times to speak to them, and he took notes of their responses to his questions during the telephone interviews.

The researcher analyzed participant responses to the interview questions to see if the questions solicited responses appropriate for the study. He reviewed the interview protocol with participants after collecting the data to see if they understood the questions. As a result, the researcher rewrote one of the interview questions and changed the way he recorded participant responses to the questions.

The original interview protocol did not ask participants for any specific information about their exact age, number of years of teaching experience, and undergraduate and graduate education. The TAS collected general information about those topics, but specific information was needed to thoroughly analyze the data. Therefore, the researcher changed the original interview question from “Would you please tell me why you became a teacher?” to “I want to know a little bit about you and why you became a teacher. Would you please tell me your age, the grades you have taught, how long you have taught, where you went to school, and why you become a teacher?”

The researcher took notes of participant responses by hand during the pilot study interviews. When reviewing the notes after the interviews, the researcher found that there were instances when he was not able to determine how the participants responded to certain questions. Therefore, the researcher decided to audio record the telephone interviews. He chose audio taping because it would provide him with a verbatim account

of the interviews, allow him to focus on the conversations, and reduce the likelihood of recording error (Alreck & Settle, 2004). The researcher added the following paragraph to the interview protocol: “With your permission, I would like to tape record our conversation. My assistant, who is my mother-in-law, and I will be the only people to listen to the tape. My assistant is going to help me transcribe the conversation. She will listen to the tape and type everything that we say so that I have an accurate record that is easy to review. All records of the telephone interviews will be destroyed at the conclusion of the study. May I tape record this conversation? [If yes, turn on tape. If no, say, ‘That’s fine. I am going to take notes of our conversation. I may ask you to slow down or repeat things so that my notes are accurate.’] Let’s begin.”

The researcher pilot tested the revised interview protocol with two other people who participated in the pilot study. When asked the new question, both participants provided the necessary demographic information. The participants were comfortable having the conversation tape recorded. One participant commented on how knowing there was a verbatim record of her comments helped her to pause and reflect before answering the questions. The audiotapes allowed the researcher’s assistant to make accurate transcriptions of the telephone interviews.

Data Gathering Procedures

The researcher began the data gathering procedure by requesting a meeting with the Superintendent of Schools for the city used in the study. The Superintendent was not able to meet in person but agreed to a telephone conversation with the researcher. The

researcher sent the Superintendent an overview of the study and a copy of the Boston College Institutional Review Board application information via email prior to the telephone call. The Superintendent told the researcher that she reviewed the project with the six elementary school principals and the president of the Teachers' Association, all of whom agreed to support the study. Therefore, the Superintendent allowed the researcher to use the city's elementary schools in the study.

The first page potential participants read when they logged on to the SurveyMonkey.com web site was the consent form. If potential participants consented to participate in the study, they proceeded to a page that collected demographic information including gender, age, years of teaching experience, grade level taught, and highest level of education achieved. After participants completed this page, they proceeded to the TAS, which they completed and submitted electronically. Potential participants who did not consent to participate in the study were thanked for their consideration and were redirected to the district's homepage. Two people logged on to the survey and did not consent to participate. The researcher asked each participant to print a copy of the consent form for his or her records.

As in the pilot study, the TAS was comprised of 20 items that used a 4-point Likert scale. It had split positive and negative questions about teacher perceptions of autonomy and the items were coded to reflect high scores for positive responses (Pearson & Hall, 1993). Participants responded to each item by selecting definitely true, more or less true, more or less false, or definitely false. Participant responses to each item are listed in Appendix B. Total autonomy scores were determined by adding the participants'

responses to each item; high scores on the TAS indicated high teacher perceptions of autonomy.

As in the pilot study, the second stage of the data gathering process consisted of semi-structured individual telephone interviews. The researcher selected 10 participants for individual telephone interviews based on their total autonomy scores on the TAS. The researcher selected five teachers with low scores on the Teaching Autonomy Scale and five teachers with high scores on the Teaching Autonomy Scale for follow-up interviews. A detailed description of the TAS scores is presented in Chapter 4. To summarize, the five participants interviewed with low scores on the TAS scored 28, 32, 35, 36, and 37. The five participants interviewed with high scores on the TAS scored 66, 55, 51, 50, and 47. The mean TAS score was 45.

The researcher sent the 10 participants selected for telephone interviews emails asking them to participate. The emails reviewed the purpose of the study, the specific purpose of the telephone interview portion of the study, the time commitment associated with the telephone interview, and the confidentiality expectations of the interview. Participants were asked to respond to the email request and, if willing to participate in the interviews, provide available days and times and telephone contact information.

The researcher called each interview participant at the prescribed time on the appropriate day. He followed the interview protocol presented in Appendix D. The researcher began the interviews by reviewing the confidentiality expectations with the participants and asking if they agreed to participate in the interview. Once the participants consented, the researcher asked questions pertaining to their responses to the survey. The

researcher asked probing questions, when appropriate, to understand the participants' thoughts about an answer to an interview question. Each interview lasted approximately 40 minutes.

Method of Data Analysis and Reporting

The quantitative data, collected through the TAS, were analyzed in a variety of ways. The researcher calculated total autonomy scores and determined the median, mean, mode, range, standard deviation, and variance for the entire sample and each grade level. He performed a *t*-test on total autonomy scores and gender to see if there was a significant difference between men and women. He performed a *t*-test on total autonomy scores and highest degree earned (bachelor's/master's degree and master's + 30/doctorate) to determine whether there was a significant difference between people with differing levels of education. He used the Pearson product-moment correlation coefficient to correlate teaching experience and age with total autonomy score. He used a one-way analysis of variance (ANOVA) to determine if there were significant difference among teachers of grades 3, 4, 5 and 6 on total autonomy score.

The researcher presented the quantitative data numerically and in tables. The numeric representation allowed readers to see the data that the researcher collected through the survey instrument. The tables enabled readers to quickly observe the strength and direction of the correlations, the *t*-tests, and the ANOVAs.

The qualitative data, collected through the individual telephone interviews, were analyzed and coded from the transcripts. Through this process, the researcher was able to identify themes in the data that related to the participants survey responses. Specifically,

the researcher was able to see if there was a relationship between teacher scores on the TAS and their perceptions of efficacy regarding their ability to prepare their students for the CMT.

The researcher presented the qualitative data with thematic selections from the individual telephone interviews. The researcher identified response patterns among participants with high scores on the TAS and low scores on the TAS. He described the patterns and presented supporting data from the interviews.

Conclusion

The data collected through the mixed-method study described in this chapter allowed the researcher to analyze the relationship between perceived teacher autonomy and perceived teacher efficacy regarding state-mandated testing required by NCLB. The mixed-method design was appropriate for this study because it allowed the researcher to identify the relationship between perceived teacher autonomy and perceived teacher efficacy, and to explore the reasons for those perceptions. The researcher collected quantitative data with the Teaching Autonomy Scale (Pearson & Hall, 1993). He used the survey results to select 10 people for follow-up interviews. Five of the people had low scores and five had high scores on the Teaching Autonomy Scale. The findings from the surveys and interviews are presented in Chapter 4.

CHAPTER 4: FINDINGS

The purpose of Chapter 4 is to present the findings of the research study. The chapter is divided into four sections. The first section reiterates the problem and the research question. The second section describes the city in Connecticut where the data were collected. The third section presents the survey data. Demographic information about the survey respondents is described and each survey question is reviewed. For each survey question, the frequency, mean, and response rate are presented; the results of the statistical analyses performed on the data are described; and a summary of the conclusions drawn from the survey data is presented. The fourth section reviews the data collected through the interviews. There is a brief description of the 10 people interviewed for the study, a summary of the data collected from the conversations, and a discussion of the conclusions drawn from the interview data.

The Problem

The No Child Left Behind Act directs states to establish annual assessments to measure student mastery of state-established learning expectations. American public school students in grades 3 through 8, with few exceptions, take a series of state-mandated assessments each year; students in grades 10 through 12 take a series of state-mandated assessments at least once during those years. NCLB and state laws mandate considerable consequences for students, teachers, and administrators if students do not perform well on the assessments. Consequences include the inability to graduate from high school and the loss of teaching or administrative positions.

Research suggests that the standardized tests associated with NCLB affect

curricula and pedagogy (Clarke et al., 2003; Hoffman, Assaf, & Paris 2001). What is not known is the level of control teachers believe they have over the curricular and pedagogic changes, and how that level of perceived control affects teachers' perceptions of their ability to prepare students for the state-mandated tests.

The purpose of this research study was to examine how teachers' perceptions of autonomy affected their perceptions of efficacy regarding state-mandated testing. Data were collected with a survey and follow-up interviews with teachers from a public school district in Connecticut.

Description of the City

The data for this study were collected from public school teachers working in a suburban Connecticut city. The city had a diverse history that spanned hundreds of years. To protect the anonymity of the city, it will be referred to as Eagleton in this paper.

The first people to live in the Eagleton area were members of the Pootatuck Native American nation. They fished in the large river that ran along the border of Eagleton, hunted game and gathered wild vegetables in the forests, and planted vegetables in the river valley. The Native Americans had contentious relations with members of other Native American nations in the area, but they had relatively peaceful relations with the European settlers who lived in small neighboring communities (Pittman & Wilsted, 2007).

European settlers started moving into the Eagleton area in the mid 17th century. They cleared tracks of forest to make room for houses and farms. The Pootatuck people found it difficult to maintain their traditional way of life as greater numbers of Europeans

moved to the area. Clashes between the Native Americans and European settlers became common. In the early 18th century, the European settlers in the Eagleton area tried to relocate the Native Americans to a reservation. Rather than commit to a substantially different way of life, the majority of Native Americans living in the Eagleton area moved to northern lands yet to be inhabited by European settlers (Pittman & Wilsted, 2007).

Eagleton was incorporated as a town in the late 18th century with a population of around 2,500 adults, 120 of whom were slaves. The town quickly transformed from a farming community into an industrial center. Entrepreneurs recognized the potential of the fast-moving river that ran along the border of Eagleton. They built a dam and several mills and factories. By the early 19th century, Eagleton was producing a range of goods, including ships, metals, and textiles (Pittman & Wilsted, 2007).

At the start of the 20th century, Eagleton was incorporated as a city with a population of about 6,500 people. The city was a regional economic power. The mills and factories, and the supporting businesses, employed many people from the city and surrounding communities. Eagleton businesses expanded their manufacturing lines to include rubber, electronics, asphalt, and molded plastics. The Eagleton economy was strong for decades (Pittman & Wilsted, 2007).

Eagleton experienced an economic collapse in the middle of the 20th century. The mills and factories, which were the primary economic forces in the city, moved to areas with less expensive operating costs, relaxed labor laws, and fewer environmental standards. The supporting businesses closed with the mills and factories. The city's economy suffered, and many of its residents were unemployed (Pittman & Wilsted,

2007).

The economic downturn lasted until the early 1980's, when the city's character changed again. Eagleton transformed from an industrial center into a bedroom community. People moved to the city for the relatively inexpensive land prices, proximity to two large cities, and low tax rate. The population increase caused a construction boom in the city. Farmland and abandoned factories were converted into condominiums, subdivisions, and strip malls. The city invested in education to accommodate the large number of new students; schools were built, existing schools were renovated, and teachers were hired to meet increasing demands. (Pittman & Wilsted, 2007). Tables 3 and 4 list estimates of Eagleton's demographic information around the time of the study (U.S. Census Bureau, 2007).

There were approximately 6,000 students in Eagleton public schools at the time of the study. Approximately 50 (<1%) of the students were American Indians, 300 (5%) were Asian, 450 (7.5%) were Hispanic, 200 (3.3 %) were black, and 5,000 (83.3%) were white. Approximately 350 (6%) of the students qualified for free lunch and 250 (4%) qualified for reduced lunch (CTDOE, 2008b). The students were taught in eight schools: six for students in kindergarten through grade 6, one for students in grades 7 and 8, and one for students in grades 9 through 12. Each of the elementary schools that participated in this study was recently renovated and had a unique appearance and character. The demographics of each school are presented in Table 1.

The following section contains information about the elementary schools. To protect the anonymity of the schools, each has been given a pseudonym: AES, BES, CES,

DES, EES, and FES.

Table 3

2005 Demographic Estimates for Eagleton, CT

<i>Descriptor</i>	<i>Number</i>	<i>Percentage</i>
Total population	40,000	100
White	37,600	94
Black	400	1
Hispanic	800	2
Native American	50	.1
Asian	800	2
Other races	350	.9
Households	15,000	100
Households with children under 18	4,500	30
People under 18	10,000	25
People 18-24	4,000	10
People 25-44	14,000	35
People 45-64	5,000	12
People 65+	7,000	18
Median age	40	n/a

Table 4

2005 Economic Estimates for Eagleton, CT

Median household income	\$60,000
Median family income	\$75,000
Median income males	\$50, 000
Median income females	\$40,000
Per capita income	\$30,000
Families living in the city	11,000
Families below poverty line	550 (5%)
People below poverty line	1,200 (3%)

Description of the Elementary Schools

Five of the six elementary schools, AES, BES, DES, EES, and FES, were built between 1940 and 1960. BES and FES were built to replace existing schools that were too small to handle the significant increase in enrollment in their neighborhoods. AES, DES, and EES were built in areas that developed as the city's population expanded from the city center. The city used the same basic architectural design for each school to save money in planning and construction costs.

AES, BES, DES, EES, and FES were one-story brick buildings with large fields and playgrounds. The main entrance to each school was in the center of the building; classrooms and other learning areas extended from the building center down two hallways. Each school had rooms designed for classes, special education instruction,

music and art instruction, and the library. The main office and a large room that was the cafeteria, auditorium, and gymnasium were located in the center of each building. These schools met the needs of the community until the mid 1980's when student enrollment and changes in educational beliefs made the buildings inadequate.

Renovations began on AES, BES, DES, EES, and FES in the early 1990s. The renovations updated the existing learning spaces and added classrooms, expanded the libraries, and built single-purpose cafeterias and auditoriums. People from the local school communities contributed to the design processes, so the additions gave each school a unique look. The front of AES had a light yellow brick façade with several large windows and an angled roof with sky lights that provided natural light to the center of the building. BES had a large cafeteria and gym complex attached to the rear of the building that was constructed with a light brown brick that complimented the original beige masonry. DES had an addition on the front of the building that included the main office and the nurse's office. EES had a large auditorium and music room complex attached to one end of the building. FES added a new auditorium, a new cafeteria, and new classrooms. All four of the schools received new roofs and chimneys, had their interiors painted, and received wireless Internet access. Each school was clean and bright at the time of the study.

CES was built in 1910 and renovated in the early 1970's. It was a red brick three story building with a large athletic field in the rear. The ceilings were high and the floors were swept and polished. The school appeared clean, but signs of wear and deterioration were present. At the time of the study, Eagleton's long-term plan was to build a new

school and close the existing building.

Eagleton is a city with a rich history. Visitors can easily find evidence of the city's agrarian roots in the many stone walls and dilapidated barns, and the city's former industrial prowess in the abandoned factories and canals. These characteristics combine to give Eagleton a unique appearance and atmosphere. Eagleton's six elementary schools are all clean and attractive buildings. Five of the six were built between 1940 and 1960 using the same architectural plans; recent renovations have given each a unique appearance that compliments their school cultures. The other elementary school was built in 1910 and renovated in the early 1970's. Eagleton educational leaders hope to build a new building for the students who attend that school.

Survey data

The quantitative data for this study were collected with the Teaching Autonomy Scale (TAS) (Pearson & Hall, 1993; Pearson & Moomaw, 2006) (Appendix A) through the SurveyMonkey.com on-line service. The TAS was comprised of 20 items that used a 4-point Likert scale. It had split positive and negative questions about teacher perceptions of autonomy and the items were coded to reflect high scores for positive responses. Items on the TAS examined issues of curriculum autonomy, which referred to the content and skills taught in class, and general teaching autonomy, which referred to the methods and strategies used to teach the students (Pearson & Hall, 1993; Pearson & Moomaw, 2006).

Pearson and Hall (1993) checked for internal consistency reliability using the Cronbach alpha coefficient. Reliability was estimated to be $\alpha = .78$ for the 20-item instrument. Two items, "My teaching primarily follows approaches that are specified by

the school” and “My instructional plan is dictated by district need” had poor item-total correlations ($r = .01, .10$ respectively). They dropped the two items from the instrument and reliability was estimated to be $\alpha = .80$.

Pearson and Moomaw (2006) revalidated the 18-item instrument. They estimated internal consistency reliability to be $\alpha = .83$, with curriculum autonomy and general teaching autonomy subscales estimated to be $\alpha = .80$. The correlation between subscales was $r = .49$. They determined the TAS to be an effective measure of the autonomy construct because the items were internally consistent, well-defined, and logically consistent with the literature.

In this study, the researcher thought that the two excluded items were relevant to his research. Since the Cronbach alpha coefficient was still acceptable with the items in the survey, the researcher decided to include them in the instrument. The researcher administered the survey, calculated TAS scores, and conducted the interviews. However, when the researcher examined the results, he found the two items with poor item-total correlations negatively affected the findings. Therefore, he removed the two items and recalculated the total autonomy scores. The data presented in this section of the thesis reflect responses to the 18-item TAS. Participant responses to the 18-item TAS are in Appendix B. Participant responses to the 20-item TAS are in Appendix C.

There were a total of 104 possible participants in the study; 67 (64%) people successfully completed the survey. Two people logged-on to the survey site and declined to participate. Sixty-three (94%) of the participants were female and 4 (6%) were male. The reason for the disparate gender-group sizes was that the vast majority of elementary

school teachers in Eagleton at the time of the study were females. Of the 104 possible participants, nine were males and 95 were females. Twenty (30%) of the participants taught reading, writing, and mathematics to third graders, 22 (33%) taught fourth graders, 14 (21%) taught fifth graders, and 11 (16%) taught sixth graders. There were fewer participants in the upper grades because there were fewer teachers. There were 28 teachers who worked with third graders, 30 with fourth graders, 25 with fifth graders, and 21 with sixth graders. Participation information by school is summarized in Table 5.

Table 5

TAS Participation by School, Grade, and Gender

<i>School</i>	<i>N</i>	<i>Gender</i>	<i>3rd grade</i>	<i>4th grade</i>	<i>5th grade</i>	<i>6th grade</i>
AES	9	8 F, 1 M	2	4	3	0
BES	19	17 F, 2 M	6	6	4	3
CES	9	9 F, 0 M	4	2	1	2
DES	7	6 F, 1 M	1	4	1	1
EES	14	14 F, 0 M	4	3	3	4
FES	9	8 F, 1 M	3	3	2	1

Survey Questions

Participants had four choices when responding to items on the TAS: definitely true, more or less true, more or less false, and definitely false. High autonomy responses

earned 4 points, medium-high autonomy response earned 3 points, medium-low responses earned 2 points, and low autonomy responses earned 1 point.

There were five items on the TAS that had means greater than or equal to 3.0, which meant the majority of respondents agreed with these statements. One of these items assessed curriculum autonomy (7) and four assessed general teaching autonomy (4, 1, 15, and 16). There were four items on the TAS that had means equal to or less than 2.0, which meant that the majority of respondents disagreed with these statements. Three of these items assessed curriculum autonomy (12, 18, and 9) and one item assessed general teaching autonomy (13). These nine items are presented in Tables 6 and 7.

Table 6

Teacher Responses on the TAS by Item, Mean > or = to 3

<i>Item</i>	<i>D True</i>	<i>M/L T</i>	<i>M/L F</i>	<i>D Fal</i>	<i>Mean</i>
4. Standards of behavior in my classroom are set primarily by me.	27 40.3%	38 56.7%	2 3%	0 0%	3.37
7. In my situation, I have little say over the content and skills that are selected for teaching.	26 38.8%	30 44.8%	9 13.4%	2 3%	3.19
1. I am free to be creative in my teaching approach.	18 26.9%	39 58.2%	10 14.9%	0 0%	3.11

Table 6 (continued)

Teacher Responses on the TAS by Item, Mean > or = to 3

<i>Item</i>	<i>DTrue</i>	<i>M/L T</i>	<i>M/L F</i>	<i>D Fal</i>	<i>Mean</i>
16. I select the teaching methods and strategies I use with the students.	13 19.4%	46 68.7%	7 10.4%	1 1.5%	3.06

Table 7

Teacher Responses on the TAS by Item, Mean < or =2

<i>Item</i>	<i>DTrue</i>	<i>M/L T</i>	<i>M/L F</i>	<i>DFal</i>	<i>Mean</i>
13. In my class, I have little control over how classroom space is used.	2 3%	6 9%	31 46.3%	28 41.8%	1.73
12. What I teach in my class is determined for the most part by me.	2 3%	8 11.9%	36 53.7%	21 31.3%	1.87
9. My teaching focuses on those goals and objectives that I select for myself.	1 1.5%	16 23.9%	31 46.3%	19 28.4%	1.98

Measures of Central Tendency

The mean, median, mode, range, minimum, maximum, standard deviation, and variance for the entire sample and for each grade level are presented in Table 8. Possible scores on the TAS range from 18-72.

Table 8

Measures of Central Tendency for TAS Results

<i>Grade</i>	<i>Mean</i>	<i>Mdn</i>	<i>Mode</i>	<i>Min.</i>	<i>Max.</i>	<i>Range</i>	<i>SD</i>	<i>Var.</i>
3	45.25	44.5	40	30	66	36	8.07	65.14
4	43.27	45.5	47	27	55	28	7.95	63.26
5	46.36	47	55	35	59	24	7.40	54.71
6	46.18	46	46	42	59	17	4.79	22.96
3-6	45	45	46	27	66	39	7.40	54.77

It would be desirable to have information on TAS scores to compare with the scores from this study. Unfortunately, there are no comparative data or published TAS scores from other studies that have used the TAS. The researcher emailed Professor L. Carolyn Pearson of the University of Arkansas at Little Rock, one of the creators of the instrument, to ask if she knew of any comparative TAS scores. She replied that she did not know of any comparative scores for the instrument (L.C. Pearson, personal communication, February 6, 2008).

The scores from the pilot study participants, who were five public school teachers from a suburban Connecticut city similar to Eagleton, are higher than the scores from the Eagleton participants. The scores from the pilot test, which was administered identically to the actual survey and had the same two items removed, were 57, 55, 54, 51, and 49; the mean was 53.2. These scores are higher than the scores obtained in the actual survey. While the size of the pilot test group was significantly smaller than the actual survey

group, the data provided perspective with which to understand the results of the actual survey and underscore the importance of conducting research on autonomy and efficacy in with larger sample sizes and in different school settings.

Significance Tests

The researcher performed significance tests to better understand the relationships among the data. He completed a *t*-test on TAS scores and gender to determine whether there was a statistically significant difference between women and men. He performed a *t*-test on total autonomy scores and highest degree earned (bachelor's/master's degree and master's + 30/doctorate) to determine whether there were significant differences on the TAS based on level of education. He used the Pearson product-moment correlation coefficient to correlate teaching experience and age with TAS scores. He used a one-way analysis of variance (ANOVA) to determine if there were significant TAS score differences among teachers of grades 3, 4, 5 and 6.

The results of the *t*-test performed on TAS scores and gender are summarized in Table 9. The results of the *t*-test performed on TAS scores and highest degree earned are presented in Table 10. In both cases, there were no statistically significant differences in TAS scores among the groups. The researcher performed power analyses to determine whether the lack of statistical significance was related to sample size. The result of the power analysis for the *t*-test of TAS scores and gender was 0.159; the power analysis of the *t*-test of TAS scores and highest degree held was 0.432. Therefore, the sample sizes were too small to determine statistical significance.

Table 9

t-Test of TAS Scores by Gender

<i>Gender</i>	<i>N</i>	<i>Mean</i>	<i>df</i>	<i>t obt</i>	<i>t crit (2 tail)*</i>
Female	63	49	65	1.052	1.997
Male	4	44.89			

* alpha=.05

Table 10

t-Test of TAS Scores by Highest Degree Held

<i>Degree</i>	<i>N</i>	<i>M</i>	<i>df</i>	<i>t obt</i>	<i>t crit (2 tail)*</i>
BA/MA	49	45.45	65	0.792	1.997
MA+30/PhD	18	43.83			

* alpha=.05

The results of the Pearson product-moment correlation coefficient calculated between TAS scores and age found a very weak negative relationship between the variables that was not statistically significant ($r = -0.14$). The results of the Pearson product-moment correlation coefficient calculated between TAS scores and years of teaching experience found a very weak negative relationship between the variables that was not statistically significant ($r = -0.13$).

The results of the one-way analysis of variance (ANOVA) performed to determine whether there were statically significant differences on the TAS among

teachers of grades 3, 4, 5, and 6 are presented in Table 11. There were no statistically significant differences in TAS scores among teachers of different grades. The implications of the statistical findings will be discussed in the Conclusions part of this section of the thesis and in Chapter 5.

Table 11

ANOVA of TAS Scores by Grade Level Most Often Taught

<i>Grades</i>	<i>N</i>	<i>Σ</i>	<i>M</i>	<i>Variance</i>		
3	20	905	45.25	65.14		
4	22	952	43.27	63.26		
5	14	649	46.36	54.71		
6	11	508	46.18	22.96		

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F obtained</i>	<i>P-value</i>	<i>F critical</i>
Between Groups	108.02	3	36.01	0.65	0.59	2.75
Within Groups	3506.96	63	55.67			

Conclusions from Survey Data

The TAS informed the research question by soliciting information about teachers' perceptions of curriculum and general teaching autonomy. Three conclusions relevant to the research question can be inferred from the data.

The first conclusion inferred from the survey data is that most respondents perceived that they had low curricular autonomy. The vast majority of survey respondents reported that the following statements were true: “The evaluation and assessment activities used in my class are selected by people other than me” (86.6%) and “In my situation, I have little say over the content and skills that are selected for teaching” (83.6%). A large majority of survey respondents said that the following statements regarding curriculum autonomy were not true: “The content and skills taught in my class are those I select” (83.6%); “What I teach in my class is determined for the most part by me” (85%); and “My teaching focuses on those goals and objectives that I select for myself” (74.7%). Based on those data, it can be inferred that the vast majority of survey respondents believed that they had limited autonomy regarding what they taught their students.

The second conclusion drawn from the TAS is that most respondents believed that they had high perceptions of autonomy regarding specific aspects of general teaching. A significant majority of respondents said that they had control over the management of student behavior, classroom space, and teaching decisions. They said the following statements were true: “Standards for behavior in my classroom are set primarily by me” (97%); “I select the teaching methods and strategies I use with the students” (88.1%); and “I am free to be creative in my teaching approach” (85.1%). The vast majority of respondents said that the following statement was not true: “In my class, I have little control over how classroom space is used” (88.1%). Based on those data, it can be inferred that a large majority of survey respondents had high general teaching autonomy

perceptions regarding classroom management, use of classroom space, and teaching strategies.

One aspect of general teaching autonomy that respondents scored low was related to assessment. The majority of respondents said the following low autonomy statement was true: “The evaluation and assessment activities used in my class are selected by people other than me” (86.6%). This suggests that the vast majority of respondents had low general teaching autonomy regarding methods of evaluation and assessment.

The third conclusion drawn from the survey data is that there were no statistically significant differences in teacher perceptions of autonomy based on gender, age, teaching experience, level of education, or grade taught in elementary school. These findings were consistent with the results obtained by Pearson and Hall (1993) and Pearson and Moomaw (2006). They theorized that gender did not have a statistically significant impact on perceptions of autonomy because the TAS generalized across gender. They suggested that level of education was not a statistically significant variable because perceptions of autonomy were related to work environment factors. They theorized that age and teaching experience did not significantly affect perceptions of autonomy because of increased expectations by school administrators that teachers collaborate. In addition, increased accountability resulting from state-mandated testing may affect teachers comparably regardless of age or years of teaching experience. Pearson and Hall (1993) and Pearson (1995) found that middle school and high school teachers had higher perceptions of autonomy than elementary school teachers. They did not find statistically significant differences among teachers of different grades within elementary, middle, or

high schools.

The conclusions drawn from the survey data are interesting and informative. They provide information regarding teacher perceptions of curriculum and general teaching autonomy. However, they do not elucidate whether teacher perceptions of autonomy are related to the state-mandated tests associated with NCLB. They do not address whether there is a relationship between teacher perceptions of autonomy and efficacy regarding the state-mandated tests. The individual interviews provide insight into these relationships.

Interview data

The qualitative data were collected through semi-structured telephone interviews. Respondents were selected for interviews based on their TAS scores; people with the five highest TAS scores and the five lowest TAS scores were invited to participate in the interviews.

There were two study limitations relevant to the interview results. Study limitations will be presented in detail in Chapter 5, but they are important to acknowledge before examining the interview data. First, the researcher selected the 10 people for interviews based on TAS scores from the 20-item instrument. After removing the two items with poor item-total correlations and recalculating the total autonomy scores, the researcher identified three people who had not been invited to participate in the interviews initially but had recalculated TAS scores higher than one of the high autonomy interview participants, EH. EH's TAS score was 47, which was close to the mean of 45. This might be why some of EH's interview responses were not consistent

with the other members of the high perceived autonomy group.

The second study limitation related to the interviews was the high number of refusals to participate. Six people with high autonomy scores (59, 58, 55, 55, 53, and 51) and three people with low autonomy scores (27, 30, and 35) declined the invitation to participate in the interviews. In addition, three people with high autonomy scores (59, 54, 55) could not participate in the interviews because they had not administered the CMT. The dearth of people with high and low perceived autonomy scores to participate in the follow-up interviews affected the study in two ways. First, since a large number of survey respondents with the highest and lowest autonomy scores did not participate in the interviews, the interview data were collected from survey respondents with TAS scores closer to the mean (45). This resulted in some findings being less clear than they might have been if people with the highest and lowest TAS scores participated in the interviews. Second, four of the five teachers with low TAS scores who participated in the follow-up interviews were from the same school, BES. This would not have been the case if the three participants with lower TAS scores participated in the interviews since they were from schools other than BES.

Possible scores on the TAS ranged from 18 to 72. The scores of the people with high TAS scores who participated in the interviews were 66, 55, 51, 50, and 47. The average score for interview participants with high TAS scores was 53.8. The mean age was 36.4 and the mean number of years of teaching experience was 8. Three of the interview participants with high TAS scores taught fourth grade, one taught fifth grade, and one taught third grade. Two of them taught at CES, two taught at EES, and one

taught at AES.

The scores of the people with low TAS scores who participated in the interviews were 28, 32, 35, 36, and 37. The average score for interview participants with low TAS scores was 33.6. The mean age was 42.6 and the mean number of years of teaching experience was 10.8. Three of the interview participants with low TAS scores taught fourth grade, one taught fifth grade, and one taught third grade. Four of them taught at BES and one taught at AES.

The following section contains information about the interview participants. The participants were given pseudonyms. The pseudonyms for participants with high autonomy scores end with the letter H. Pseudonyms for participants with low autonomy scores end with the letter L. In addition, some of the descriptive information is vague to protect the anonymity of the participants.

Interview Participants

The highest possible score on the TAS was 72. The interview participant with the highest TAS score was AH, who scored 66 on the instrument. She was a third grade teacher with a master's degree in education who had been teaching for fewer than five years.

AH received her teacher certification in 1982 but did not enter the profession at the time because of a lack of available teaching positions. She worked in a variety of human service areas, particularly physical and mental health. She decided to apply for a teaching position when she noticed a number of openings in her home city, Eagleton. Her favorite part of being a teacher was "Seeing change when that light bulb goes off. I think

it is so rewarding when you see that the kids get something.” Her least favorite part of teaching was “Paperwork [district level assessments and record sheets]. I answered that quick, didn’t I? It comes from the top. We need to do this and we need to do that. We need to fit this in and that in. When are we supposed to do all of that?”

BH was the interview participant with the second highest score on the TAS. She scored 55 on the instrument. BH was a fourth grade teacher with fewer than five years of teaching experience. She had a master’s degree in education.

BH worked in advertising in New York City when she first graduated from her undergraduate program. After a few years she realized that she was not satisfied working in advertising. She had many teachers in her family who recommended she consider a career in education. She said, “I thought that being an elementary school teacher would be a very fulfilling job, so I got my master’s degree and ended up as a teacher.” Her favorite part of being a teacher was, “The fact that I get to have a variety of students in my class. I teach them [and] they teach me many things. It is very enjoyable to be around children.” Her least favorite part of teaching was, “The amount of paperwork [district level assessments and record sheets] we are required to do.”

CH was the interview participant with the third highest score on the TAS. She scored a 51 on the instrument. She was a fourth grade teacher with between six and 10 years of teaching experience. She had a master’s degree in education.

CH became a teacher because, “I enjoy working with children and being a positive and consistent role model in their lives.” When asked about her favorite part of being a teacher she said, “Seeing the expressions on children’s faces as they learn new

information. Hearing the excitement when they learn something new or they finally figure something out.” She said her least favorite part of teaching was, “Having children be defiant, not listening or following directions, and children who don’t put any effort into their work.”

DH was the interview participant with the fourth highest score on the TAS. She scored a 50 on the instrument. She was a fifth grade teacher with between six and 10 years of teaching experience. She had a master’s degree in education.

DH wanted to be a teacher from the time she was a young child. Her father was a teacher and she wanted, “To give the same wonderful life to my children” that her father gave to her. DH’s favorite part of being a teacher was, “Working with the kids and the fact that every single day is never boring. Working with the kids and watching them ‘get it’ is so fun.” Her least favorite part of being a teacher was, “The bureaucracy. We do a lot of testing. It is the most important thing we are teaching to rather than teaching the whole child.”

EH earned a 47 on the TAS. She had between 16 and 20 years of teaching experience. At the time of the study she was teaching fourth grade. She taught her entire career at the same Eagleton public school, but she taught grades other than fourth during her tenure. She had a master’s degree in education.

EH became a teacher because of her love of children. She said, “I always wanted to be a teacher because I love working with kids. Being a teacher seemed like the natural thing to do.” She said her favorite part about being a teacher was, “Seeing how the kids grow over the course of the year. There is tremendous growth in a 10-month period. That

is very fulfilling.” She said her least favorite part of teaching was, “The number of demands on kids today that they did not have 10 years ago. Things are much more test-driven now rather than learner based. We have to get the kids to the standards so teachers have lost some ability to be creative.”

The lowest possible score on the TAS was 18. The interview participant with the lowest TAS score was ZL, who scored 28 on the instrument. She was a fourth grade teacher who had been teaching for between six and 10 years. She began her career as a first grade teacher before moving to fourth grade. She had a master’s degree in education.

ZL knew she wanted to be a teacher from her earliest years. She said, “Teaching was the very first thing I wanted to do because my mother was a teacher.” Her favorite part of being a teacher was “The rapport you build with the kids. I love that some of my best friends are fourth graders.” When asked about her least favorite part of teaching she said, “How much time do you have? We get so many different directives from so many different people and we feel like nobody is talking to each other. There has been a huge increase in the amount of paperwork [district level assessments and record sheets] that we have to do and there is no leeway in what we can teach. They give us more than there are minutes in the day to complete and it is a huge strain on teachers.”

YL was the interview participant with the second lowest score on the TAS. She scored a 32 on the instrument. YL was a fourth grade teacher with between 11 and 15 years of teaching experience. She had a master’s degree in education and an advanced graduate diploma in education.

YL always knew that she wanted to be a teacher. She said, “My whole life I

always wanted to be a teacher. I never wanted to be anything else. I absolutely adore children and I love helping people.” She said her favorite part of teaching was, “Being with the kids. They make me happy and I love helping them when they struggle to learn something.” She said her least favorite part of teaching was, “Dealing with all of the directives that come from central office. I feel like no matter what I do for them it is not good enough.”

XL was the interview participant with the third lowest score on the TAS. She scored a 35 on the instrument. She was a fifth grade teacher with fewer than five years of teaching experience, all of them in fifth grade at one Eagleton public school. She had a master’s degree in education.

XL became a teacher because she wanted to work in a profession “Where I felt I was making a difference in the world and in the everyday lives of people.” Before becoming a teacher she worked as an administrative assistant in a commercial real estate firm. After a few years she realized she wanted to make a career change, so she went to graduate school, earned her teaching certificate, and got a job as a teacher. XL’s favorite part of being a teacher was, “Seeing the growth in the children. I love knowing where they started [academically] and where they are when they leave me at the end of the year.” Her least favorite part of teaching was, “The amount of stress involved in my job due to multi-tasking. I am just being asked to do too many things by too many people constantly.”

WL earned a 36 on the TAS. She had between 21 and 25 years of teaching experience. At the time of the study she was teaching third grade. She had a master’s

degree in education and an advanced graduate diploma in education.

WL became a teacher because of her third grade teacher. She said, “[My third grade school year] was a great experience and I always wanted to be a third grade teacher.” Her favorite part of being a teacher was, “The children. Even at my age I still enjoy going in and with everything else being somewhat overwhelming at times the children are still the best and make teaching a worthwhile job.” Her least favorite part of teaching was, “What is coming down to us from above. There is a lot that we have to do as far as district assessments.”

VL earned a 37 on the TAS. She had between 11 and 15 years of teaching experience. At the time of the study she was teaching fourth grade. She had a master’s degree in education.

VL worked in business for 15 years before becoming a teacher. She said, “I was ready for a change and I saw the work that was done in my children’s pre-school. It seemed interesting, exciting, and creative, so I went to [graduate school] for a master’s degree and certification.” She said her favorite part of being a teacher was, “Interacting with the class and helping [the students] understand the world and their place in it. I also love sharing my love of learning with the students.” VL said her least favorite part of teaching was, “The pressure of fitting all of the CMT-related material into a six hour school day. I understand and agree with the testing notion that there has to be a way to compare schools and ensure accountability, but the pressure from the district leaves teachers with no breathing space.”

Themes in the Interview Data

Analysis of the interview data revealed three themes: the perceived impact of the CMT on teaching and learning, perceived autonomy regarding the CMT, and perceived efficacy regarding CMT preparation. Each theme will be presented in detail in the following sub-sections of the paper.

The Perceived Impact of the CMT on Teaching and Learning

Eight of the 10 interview participants said that the CMT had some positive impact on teaching and learning. AH, BH, DH, VL, and WL said that overall the CMT had a mostly positive impact on teaching and learning. AH said that she liked the CMT because, “The tests assess things we need to be teaching them. It makes us teach things that are important for the students to know.” BH said she particularly liked how the CMT asked students to, “Explain their thinking in math in words. That is appropriate and important for them to be able to do so they can show me what they are thinking and how they are solving the problem.” DH said, “The CMTs are important. They definitely give some structure and guidance to a teacher. They show us what we need to teach. I do think they guide us, but I think a good teacher teaches to her kids needs.” VL said, “I think the CMT has a positive effect, particularly in reading and math. The reading CMT is broad and it asks students to make inferences and draw conclusions; that is not what we used to teach. In math, I don’t like how some of the questions are worded, but I like that it forces us to focus on some higher math strands.” WL said, “I think [the CMT] has had a positive effect over all. I think it causes one to be more on their toes and to be very current in what and how we teach.”

EH, ZL, and YL said that the CMT had positive and negative impacts on teaching and learning. EH said, “I’m not sure right now. The data says we are helping the students improve on skills and concepts, but are we making them life-long learners?” ZL said, “I see the positive impacts being that there is consistency in the state with what all of schools are doing. So that you know all fourth graders in the whole state of Connecticut are learning the same kinds of things. On the negative side, it is making us go a lot faster so that I don’t think it is a matter of spending the time to teach so that the kids will actually learn. It is more like teach them so that they can take this test and be a good test taker.” YL said, “It is positive because we get those scores which enable you to find out exactly where the child’s strengths and weakness are and that gives you information to help the children. It does guide your instruction and help you in that manner. I also think it is negative because I think everything is taught to the CMT. I think there are some things that are lost in the curriculum because of the focus on the CMT.”

Two of the 10 participants, CH and XL, said that the CMT had a mostly negative impact on teaching and learning. CH said, “I think the CMT has a negative effect. I don’t think it really shows what we teach in the classroom. Some of the information on the CMT is things that we don’t cover. Some teachers do teach to the test then we leave out things that the children do need in their everyday lives.” XL said, “I feel it has had a negative impact because I am being asked to focus now specifically on weak areas of the CMT. I am frequently being told to not even teach concepts and skills that are not on the CMT, which I find to be very contrary to my beliefs. We analyze our scores and we find out what our weak strands are and I am being asked to spend the majority of my time on

what is a weak strand of the CMT.”

All 10 of the interview participants said that the CMT affected the curricula they taught in their classrooms. All but DH said that the CMT had a significant impact on what they taught. AH said, “There is so much emphasis on it that I don’t see how it can’t be in any classroom. There is emphasis from the state that goes into the school system which trickles down to the principal and the curriculum leaders and down to everybody.” BH said, “The CMT basically affects most of what we teach. Most of the time we spend teaching our goal ultimately is the CMT and being successful on it.” CH said, “Yes, the CMT affects everything we teach. Most of our reading program is geared to open-ended questions that the children see on the CMT.” EH said, “Yes. One hundred percent of what I teach is focused on the CMT.” ZL said, “We are told to focus on what we scored low on. We have a push toward the area we scored low on to make sure our scores improve.” YL said, “The CMT is absolutely everything I teach. I teach to the test. CMT drives everything I do every day in every single lesson. In my lesson plans my administrator wants to see what strand I am teaching for every single lesson.” XL said, “It affects what I teach because our curriculum has recently all been redesigned to align better with the CMT so if something is not on the CMT frequently it is not in the curriculum.” WL said, “Really at this point in time I think that the CMT and our curriculum are becoming one in the same so everything is strand related. When we do our lesson plans for our principal she wants to know what CMT strands we are teaching. So I would say it totally affects everything I teach. It is what I teach.” VL said, “Oh definitely [the CMT affects what I teach my students]. For example, I had to pick a strand to be evaluated on by my

evaluator. We focused on it and the kids did better. It is a good skill and we should teach it, but we wouldn't teach it if it wasn't on the CMT."

DH was the only interview participant who said that the CMT did not have a significant impact on the curricula. She said, "The CMT affects what I teach to a degree. There are certain things we have to teach because of the test. But I still try to do as much of what I think they need to know for the real world. I put as much of that that I can put in there while still getting everything else done."

Eight of the 10 interview participants said that the CMT had an impact on their pedagogy. EH, VL, WL, YL, and ZL reported that the CMT had a significant impact on how they taught their lessons. EH said, "The CMT has a major impact on how we teach. We know how the test is laid out and what the questions are like. We take the program we teach and help the students to know how to use the CMT format for the CMT and all the tests they make us give." VL said, "Yes, because the wording on the test is unusual so we have to create worksheets with that language. We have to use the CMT language to prepare the students for the tests." WL said, "Yes it does. My administrators are all saying we should be extending this with some kind of open-ended response [to prepare them for open-ended questions on the CMT and district level-assessments]." YL said, "It does because of all of the assessments central office makes us give the students during the year. We are constantly doing something related to the CMT." ZL said, "Yes because I will specifically ask them questions in a scripted way almost so it is preparing them and they will understand the wording of particular questions verbatim from the test. [Curriculum coordinators and administrators] are making us rewrite all of our math tests

in our math program so that they parallel more of what is on the mastery test.”

Three of the participants, AH, BH, and XL said that the CMT had some effect on their pedagogy. AH said, “Most of how I teach is the same. Sometimes I will have them do a little more independent work without as much guidance as I normally give so they get used to the testing environment.” BH said, “Well it does in a way, because we have to make sure the kids know certain concepts. We are required to do so much paper work so it takes away from our students and every year we seem to be adding more assessments.” XL said, “I think my teaching style remains mostly the same, but I do make sure that they understand the format that they are going to be asked the questions in. The one thing I would say is that along with the presence of the CMT is a huge push for data collection within my district. There seems to be a very large trend within my district for collecting data and that is one of the huge things that’s been put on my plate lately that wasn’t there before that is really kind of really overtaxing me.”

Two of the participants, CH and DH, said that the CMT had no affect on their pedagogy. CH said, “No, the CMT has no effect on how I teach. I teach the way each student needs to learn the information. We are directed to give practice tests as well as different assessments showing how well the students have learned specific parts of the CMT. We just implement them into our daily lesson plans.” DH said, “We have to give district assessments, we are not making up our own tests, the district is making up the tests that they want the kids to have with every unit of every subject. We have to teach to those specific tests because they are all the CMT strands. But I won’t let the CMT affect my teaching style.”

Eight of the 10 interview participants said that the CMT improved their teaching. DH, EH, VL, WL, and YL said that the CMT significantly improved their reading, writing, and mathematics instruction. DH said the CMT improved her instruction because, “It gives you goals. It gives you things you know the kids have to reach. You have to reach these certain goals so you push forward. It is nice to have some sort of structure and it does give the lesson structure. It gives them meaning for me as a teacher to plan.” EH said the CMT improved her instruction because, “The curriculum is driven by scores on the CMT so I have to teach all of the topics on the CMT well.” VL said, “Yes [the CMT] helps because it helps us make certain we don’t only focus on black and white questions. There are higher order questions on the CMT so we cover those strategies needed to answer those questions.” WL said the CMT helped her to teach reading, writing, and mathematics because, “It gives you a standard and expectation of achievement. It does help you to teach and I guess in many ways it equalizes all of the towns and gives them all the same criteria. It equalizes them on a state level which I do think is important.” YL said that the CMT helped her teach reading, writing, and mathematics because, “It helps me identify and target certain weaknesses in children.”

BH and CH said that the CMT had some positive effect on how they teach reading, writing, and mathematics. BH said that the CMT helps her because, “It gives me a guideline to what we are supposed to be teaching, but it doesn’t make me a better teacher.” CH said, “It helps in math because the concepts that are on the test are things that the student will need to know in the everyday world. I feel the reading is not always beneficial, that it is more important that the child is able to read fluently as well as answer

questions and understand what they are reading and learn to read for pleasure.”

AH, XL, and ZL said that the CMT did not help them teach reading, writing, and mathematics. AH said, “No I don’t think it has any bearing. I think I would teach just as well as I do whether the CMT was hovering over me or not.” XL said, “The CMT gears what I teach and kind of how I teach it, but I don’t think it makes me a more or less effective teacher.” ZL said, “No. No. No. The CMT does not make me a better teacher.”

In sum, all 10 of the interview participants said that the CMT had an impact on teaching and learning. Four participants with high TAS scores and four participants with low TAS scores said that the CMT had some positive effect. One teacher with a high TAS score and one teacher with a low TAS score said that the CMT had a primarily negative effect on teaching and learning. Thus, teacher perceptions of autonomy as measured by the TAS did not appear to affect significantly whether teachers believed the CMT had a positive or negative impact on teaching and learning.

All 10 of the interview participants said that the CMT affected the concepts and skills they taught their students. Every teacher but one, who had a high TAS score, said that the CMT had a significant impact on what they taught. The one teacher said that the CMT affected what she taught, but it did not have a significant effect. Therefore, teacher perceptions of autonomy as measured by the TAS did not appear to affect significantly teacher beliefs regarding the impact the CMT had on the curricula.

Eight of the 10 interview participants said that the CMT affected how they taught their students. One teacher with a high TAS score and four teachers with low TAS scores said that the CMT had a significant impact on how they taught their students. Two

teachers with high TAS scores and one with a low TAS score said that the CMT had some effect on how they taught their students. Two participants with high TAS scores said that the CMT had no effect on how they taught their students. When explaining their thoughts regarding their autonomy over instructional practices, nine of the 10 interview participants, all but VL, commented on their lack of autonomy regarding curriculum and/or assessments. It can be inferred from these data that teachers with high perceived autonomy thought that the CMT had less of an impact on their pedagogy than teachers with low perceived autonomy scores on the TAS.

Perceived Autonomy Regarding the CMT

Five of the 10 interview participants said that they had some control over the test preparation practices they implemented in their classrooms. AH, BH, CH, DH, and EH said that they had autonomy regarding certain aspects of CMT preparation. AH said, “I think I have the control over CMT preparation in my classroom. I like the control that I’ve got. I’m not looking for more control.” BH said, “Well, as far as the materials go we can pretty much use what we want. We are supplied with examples but we also provide our own. As far as the concepts, we are instructed what concepts to go over.” CH said, “We are just given materials that we must use, assessments we have to give, and papers that we should record the scores on. [Building administrators and curriculum coordinators] give us different rubrics that are required that we use for a lesson or that component of the test. But I guess I have some control over how I use some of the materials that they give me.” DH said, “There are definitely directives and things that they want us to do for the tests and they have given us materials to do but we really do

have the control in our classroom as how we want to present it and when we want to present it. So even though we have been given the materials and everything we are supposed to be doing they kind of leave it up to us how we want to do it.” EH said, “They give you the things you need to prep the kids for the tests, but we have discretion about how we use the materials they give us.”

Four of the 10 interview participants said that they had little control over the test preparation practices they implement in their classrooms. VL, WL, XL, and ZL said that they had limited autonomy regarding CMT preparation. VL said, “I have very little control over how I prep students for the CMT. I can pick the story I want to read with the students, but I am told what strand to work on.” WL said, “They give us everything we have to use with the students, but I still feel I have a little control over it. I mean I am still doing what I am supposed to do as far as my district is asking yet I can make up some things on my own too.” ZL said, “I guess I would say I have no control over the materials and some control over how we are going to go about it. You have to think about every class is different too, so you have to make some decisions on your own.”

One of the 10 interview participants, YL, said that she had no control over the CMT preparation practices implemented in her classroom. She said, “I have no control. We are given the materials we have to use. We are told by a pacing guide exactly where we are supposed to be. Eagleton wants us teaching the exact same thing at the exact same time. No, I have no control over CMT prep.”

Five of the 10 participants said that they thought the level of autonomy they had over CMT preparation helped them prepare their students for the CMT. AH, BH, CH,

DH, and WL said that they were satisfied with the level of control they had over CMT preparation. AH said, “I think I have the right amount of control over how I prepare my students for the CMT. I appreciate the resources I’m given by the district and I like that I can use them as I see fit based on student needs.” BH said, “I don’t think I could probably prepare them better if I had more or less control because if we weren’t given specific standards which we needed to teach then it would be too broad of a subject to focus on without having any kind of knowledge of exactly what they needed to learn.” CH said, “I think even though most of it is directed we are still able to help them prepare for the test. It is still beneficial to teach what they give in the best or most creative way. The materials are beneficial. To some students they may be boring or they may not work as all students in my classroom do not always learn the same way. I have to help reach those students too.” DH said, “The amount of control I have makes me more effective. I think that anybody can hand anybody books of things that the kids need to know but if you don’t have your own style and own way of trying to teach it you are not going to touch every kid because that type of testing doesn’t touch every kid. So we have to use different strategies with different types of kids to get them to understand it.” WL said, “It works because it is a cooperative effort that it is coming from my supervisors and then from our reading person in our building and the tutors and we are basically working as a team for the same goals. In that sense it is a collaborative effort that is best for the students.”

Four of the 10 interview participants said that the level of control they had over CMT preparation made them less effective at preparing their students for the tests. EH, VL, YL, and ZL said that they would better prepare their students for the CMT if they

had more control over what and how they teach. EH said, “If I had more control over [CMT] prep materials I would prepare them better. I know the kids and could make it work for them.” VL said, “I like the materials they give because they are related to the CMT. I think I should have more control over how I want to use them with my kids rather than having to be on a certain page or standard at a certain time.” YL said, “I have children who have special needs and children who learn differently and I would appreciate if people would just let me work with them in the manner in which they would learn best. Just let me use my knowledge and my expertise and let me do what it is that I know and can do rather than telling what I’m supposed to do every single day.” ZL said, “If I had more control I would probably be more effective. Because sometimes you feel like if they would just leave you alone you would be doing it better than when you do it their way.”

One of the interview participants, XL, said that she did not know if she would be more effective if her level of control over CMT preparation changed. She said, “I don’t know if I would be more effective if I had more control over CMT prep. I’ve only done it with the district materials and pacing guides, so I’m not sure.”

In sum, teacher perceptions of autonomy regarding the CMT as expressed in the interviews were consistent with teacher scores on the TAS. All five teachers with high TAS scores said that they had some control over the test preparation practices they implemented in their classrooms; all five teachers with low TAS scores said that they little or no control over CMT preparation practices. Thus, teacher perceptions of autonomy as measured by the TAS appear to affect teacher beliefs about the level of

control they have over CMT preparation in their classes.

Teacher satisfaction with their perceived autonomy regarding CMT preparation, as expressed in the interviews, tended to be consistent with TAS scores. Five of the 10 interview participants said that the amount of control they had over CMT preparation helped them prepare their students for the tests; four of the five participants had high TAS scores and one participant had a low TAS score. Four participants said that the amount of autonomy they had over CMT preparation made them less effective at preparing their students for the tests. Three of the four had low TAS scores and one had a high TAS score. One participant with a low TAS score was not able to determine whether she would be more or less effective at preparing her students for the CMT if there was a change in her level of control over test preparation. Based on these data, it can be inferred that teacher perceptions of autonomy as indicated on the TAS affect teacher satisfaction regarding CMT preparation practices.

Perceived Efficacy Regarding the CMT

All 10 of the interview participants said that they prepared their students well for the CMT. The teachers who had high scores on the TAS tended to attribute their success to authentic learning of the skills and concepts assessed by the CMT. AH said, “[The students] are prepared for it. They know it is coming. I hope they remember to use the skills we practice after they take the test.” BH said, “I am a very involved teacher. I am not the one just to pass out packets and say, ‘Here, you do this.’ I try to provide all of my students with an ability to understand a problem, or reach some kind of answer. I incorporate modeling, using games, and other strategies just to make sure that they are

reaching their potential and they are actually able to be successful on this test.” CH said, “I feel that I do prepare my students well due to the fact that I spend a good amount of time in the classroom working on questions that they will see on the CMT as well as how to answer them. We work on multiple-choice as well as open-ended, different types of strategies to solve different problems. So I feel that it is beneficial to them when they do take the test that it is something that they are familiar with.” DH said, “I don’t know that I prep them like the district wants them prepped. I try to get them to work on things for the CMT while making it innate in them and not a CMT thing.” EH said, “I think I prepare them well for the CMT because I am teaching them what they need to know to do their best work on the tests. We do some work specific to the tests like multiple-choice questions, but I try to get them to use the concepts outside of the tests too. If they know the material well they will do well on the CMT and when they use it in real life.”

The teachers with low scores on the TAS tended to say they prepared their students well for the CMT because they reviewed concepts and skills assessed by the CMT prior to the exams and they taught their students test-taking strategies. VL said, “My kids are ready for the tests because we practice a lot for the tests. For example, we take a lot of practice tests in the few weeks that lead up to the test. Most of them, not all, are ready and I think do well on the tests.” WL said, “Usually my students do well on the CMT. We do a lot of practice right before the tests start and I think it pays off for most of them.” XL said, “I think I prepare them in the well to very-well range. I use the materials [the district] gives me and I teach them some test tricks like how to take a multiple-choice test, so I think they do well.” YL said, “I think I am effective in preparing [my students]

for the CMT because I teach them tricks. I teach them test taking tricks. Do I think that is preparing them for the real world? Do I think I am really educating them? No I don't. I am teaching them to take a test. So, do I prepare them? Yes." ZL said, "I still feel like a do a pretty good job preparing them. Especially in those few months before they take it. I try to make sure that I spend a lot of time so that I'm comfortable knowing that they are going to do a little bit better than they did the year before. I teach them so they understand and so they can beat the system too. Like all those estimation questions. I teach them that estimation means rounding off and choosing the best answer. Or I'll say [the CMT scorer] won't know if you're not estimating, so just add the numbers and pick the closest answer. I start teaching them the tricks."

All 10 of the interview participants said they were good teachers of reading, writing, and mathematics. However, teachers with lower scores on the TAS tended to view teaching reading, writing, and mathematics as separate from preparing students for the CMT. They perceived themselves as more efficacious when teaching reading, writing, and mathematics not related to the CMT. VL said, "I think I teach them very well. When I can teach them without worrying about the CMT I do a really good job." WL said, "I think I do a very good job. I beat myself up a lot, but I know I am good. The older I get I am actually getting more confident. I think when you still enjoy it that is a really good sign." XL said, "When I can just teach my kids reading, writing, and math without all of the CMT and data gathering assessments from the district I do a very good job." YL said, "Just me as a teacher not worrying about the stuff that comes down from central office? Oh, I think I am an excellent teacher." ZL said, "I teach them very well. I like that part

[not preparing them for the CMT] more. I get so bored with the CMT. It is like enough already. I think it more fun to just keep going through the regular curriculum.”

The teachers with higher scores on the TAS tended to have the same efficacy perceptions regarding CMT preparation and teaching reading, writing, and mathematics. AH said, “I try to teach for the CMT and beyond. We are doing hands-on with manipulatives and using the white boards, keeping in mind that [the students] are going to take CMT and not be able to use those things. But I am looking beyond the CMT. I’m hoping they can go into a store and hand the clerk the correct amount of change when they buy a candy bar. It might not be the same type of problem that is going to be on the CMT as far as figuring the math. I feel good about what I teach and the control that I have.” BH said, “I am a very involved teacher. I model what I teach the kids, like writing, before they do it. I show them my final piece and they kind of feed off of what I have provided them. In reading I review tons of basic comprehension as well as interesting questions and we do a lot of connection questions. This is good for the CMT but it is also good for their learning.” CH said, “I think I do a good job teaching reading, writing, and math. My students do as well as I expect on the CMT and on the district assessments.” DH said, “I think reading and writing are definitely my strengths in teaching. I teach them very well. Writing is something I have a profound love for. I write children’s books and I share those with the kids and I get them to create their own. My kids love reading and writing with me, and my CMT scores the past years have been great.” EH said, “I think I do a very good job teaching language arts and math. I know my students and their strengths and weaknesses and I differentiate my instruction to focus on their individual

needs. The CMT and other assessments say that I do a good job teaching my students.”

In sum, all 10 of the interview participants had high perceived efficacy regarding CMT preparation and the teaching of reading, writing, and mathematics. Their beliefs about why they were effective at teaching their students tended to vary based on TAS scores. All five of the teachers with high TAS scores attributed their success preparing students for the tests on the authentic teaching and learning exercises that taught the students the concepts and skills necessary for them to succeed on the CMT. These teachers tended to view the CMT as an assessment of the curriculum and had the same perceived efficacy for teaching reading, writing, and mathematics and preparing their students for the CMT. All five of the teachers with low TAS scores attributed their success in preparing students for the CMT on the time they spent preparing the students before the tests and the tricks they taught the students to help them succeed. These teachers viewed the CMT as an addition to the curriculum and had higher efficacy perceptions for teaching their students reading, writing, and mathematics than they did for preparing their students for the CMT. Thus, perceptions of autonomy as indicated by the TAS did not appear to affect perceptions of efficacy regarding the CMT, but they may have influenced how teachers viewed the CMT and how they prepared their students for the tests.

Conclusions from the Interview Data

The first conclusion drawn from the interview data was that the CMT affected curricula and pedagogy. All 10 of the interview participants, regardless of score on the TAS, said that the CMT influenced what they taught their students. Each interview

participant described how the information they presented and the materials they used were specifically focused on the concepts and skills assessed by the CMT. They all mentioned that they were given CMT preparation materials to use by their school administrators and curriculum coordinators.

The majority of the interview participants said that the CMT had an impact on their pedagogy. The responses tended to differ based on participant scores on the TAS. Participants with higher scores on the TAS tended to report that the CMT had less of an impact on their pedagogy than teachers with lower scores on the TAS. Two participants, CH and DH, said that the CMT had no effect on how they teach. Three of the participants, AH, BH, and XL, said that the CMT had some effect on their classroom practices. The remaining five participants, EH, VL, WL, YL, and ZL, said that the CMT had a significant impact on how they teach. When asked to discuss the specifics of their autonomy regarding instruction, nine of the ten interview participants said that they had limited or no autonomy regarding assessment and curriculum.

All of the participants said that the CMT had some effect on their teaching of reading, writing, and mathematics. Teacher scores on the TAS did not appear to influence participant responses. Five participants, AH, BH, DH, VL, and WL said that overall the CMT had a primarily positive impact on their teaching. Three participants, EH, YL, and ZL said that the CMT had some positive and some negative effects on their teaching of reading, writing, and mathematics. Two respondents, CH and XL, said the CMT had a primarily negative effect on the teaching of reading, writing, and mathematics.

The second conclusion drawn from the interview data was that participant

perceptions of autonomy regarding CMT preparation as expressed in the interviews were generally consistent with participant scores on the TAS. Interview participants who scored higher on the TAS tended to say that they had more control over CMT preparation practices than participants with lower scores on the TAS. Four participants, AH, BH, DH, and EH said that they had some control over the materials and practices used to prepare their students for the CMT. Five participants, CH, VL, WL, XL, and ZL said that they had little control over CMT preparation in their classrooms. One participant, YL, said that she had no control over CMT preparation practices.

The third conclusion drawn from the interview data was that interview participants with higher TAS scores tended to be more satisfied with their level of control over CMT preparation than participants with lower TAS scores. AH, BH, CH, DH, and WL said that the level of control they had over CMT preparation practices helped them effectively prepare their students for the CMT. EH, VL, YL, and ZL said that they would be more effective at preparing their students for the CMT if they had greater autonomy over curricular and pedagogic decisions. XL said that she did not know if she would be more effective with greater autonomy regarding CMT preparation practices.

The fourth conclusion drawn from the interview data was that all interview participants, regardless of TAS scores, had high perceived efficacy regarding CMT preparation. However, participant views of the role of the CMT and how to prepare students for the tests tended to vary depending on TAS scores. Participants with higher scores on the TAS tended to view the CMT as an assessment of the curricula and report that their students were prepared for the CMT because the participants taught them the

skills and concepts necessary to succeed on the CMT. AH, BH, DH, and EH described using authentic learning experiences to prepare their students for the CMT and life beyond the tests. Participants who scored lower on the TAS tended to view the CMT as an addition to the curricula and say that their students did well on the CMT because of specific practice time and activities dedicated to test preparation. CH, VL, WL, XL, YL, and ZL said that their students were prepared for the CMT because their students spent time answering questions similar to the ones on the CMT, reviewing skills and concepts assessed on the CMT in the weeks before the tests, and/or practicing tricks to help them succeed on the tests.

Conclusion

The data from the TAS and from the follow-up interviews suggest that teachers, regardless of perceived autonomy, had high perceived efficacy regarding CMT preparation and the teaching of reading, writing, and mathematics. In addition, all 10 interview participants reported changes to the curricula due to the state-mandated tests.

Teachers with high scores on the TAS tended to report that the CMT had less of an impact on their teaching practices than participants with low TAS scores. Participants with high TAS scores tended to say that they were given a significant number of resources from administration but that they had some discretion regarding how to use them in their classes. The vast majority said that their students performed well on the CMT because the students engaged in authentic learning exercises that taught the students the skills and concepts assessed by the CMT. These teachers tended to view the CMT as an assessment of the curricula, think that the CMT had mostly positive effects on

education, and believe that the CMT improved their teaching.

Teachers with low scores on the TAS tended to view the CMT as an addition to the reading, writing, and mathematics curricula that they had to teach. All five participants said that they effectively prepared their students for the CMT but that they were better teachers of reading, writing, and mathematics when they were teaching the “regular” curriculum rather than preparing their students for the CMT. They tended to say that the CMT had positive and negative effects on education. The vast majority of teachers with low scores on the TAS reported that the CMT significantly impacted their teaching practices. They said that administrators gave them a several CMT-specific resources that they were expected to use in addition to their reading, writing, and mathematics curricula.

The significance of these findings and recommendations for practice based on the current research on teacher autonomy and efficacy will be examined in Chapter 5.

CHAPTER 5: CONCLUSIONS

The purpose of Chapter 5 is to present the conclusions drawn from the study findings. The chapter is divided into six sections. The first section summarizes the findings of the study. The second section is a discussion of the findings. In this section, the findings are examined in relation to the research on the effects of state-mandated testing on curricula and pedagogy, teacher perceptions of autonomy, and teacher perceptions of efficacy. In addition, conclusions drawn from this study are detailed. The third section presents the limitations of the study. The fourth and fifth sections present recommendations for practice and public policy based on the study findings. The fifth section suggests areas for future research. The sixth section is the conclusion of the paper.

Summary of the Findings

The purpose of this study is to understand how suburban elementary school teachers' perceptions of autonomy affect their perceptions of efficacy regarding state-mandated testing. The results of the study suggest that teacher perceptions of autonomy do not significantly affect their perceptions of efficacy regarding the state-mandated tests associated with NCLB. The data regarding teacher perceptions of autonomy were obtained with the Teaching Autonomy Scale (TAS) (Pearson & Hall, 1993) (Appendix A) and self-reports made during semi-structured telephone interviews. The data regarding teacher perceptions of efficacy were obtained from self-reports made during semi-structured telephone interviews.

The findings suggest that teacher perceptions of autonomy may influence how teachers view the state-mandated standardized tests. Teachers with high perceived

autonomy tended to report that the CMT had less of an impact on their classroom practices than teachers with low perceived autonomy. Teachers with high perceived autonomy tended to report that they were given a significant number of resources from administration but that they had some discretion regarding how to use them in their classes; teachers with low autonomy tended to report that they had little to no discretion over the resources they used to prepare their students for the state-mandated tests. Teachers with high perceived autonomy tended to report that their students performed well on the CMT because the students engaged in authentic learning exercises that taught the students the skills and concepts assessed by the CMT; teachers with low perceived autonomy tended to say that they effectively prepared their students for the CMT because of the drills and intensive reviews they did before the tests. Teachers with high perceived autonomy tended to view the CMT as an assessment of the reading, writing, and mathematics curricula; teachers with low perceived autonomy tended to view the CMT as an addition to the reading, writing, and mathematics curricula. Teachers with high perceived autonomy tended to report that the state-mandated tests had mostly positive effects on education; teachers with low perceived autonomy tended to say that the CMT had positive and negative effects on education.

Discussion of the Findings

The findings of several of the studies reviewed in Chapters 1 and 2 are relevant to the findings of this study. In this section of the paper, the findings of this study will be compared with the findings of relevant studies in three areas: the effect of state-mandated testing on curricula and pedagogy, the effect of teacher perceptions of autonomy on

pedagogy and professional satisfaction, and the effect of teacher perceptions of efficacy on instructional reforms. In addition, the significant finding of this study will be presented.

The Effect of State-Mandated Testing on Curricula and Pedagogy

The findings of this study regarding the effect of state-mandated testing on curricula are consistent with the findings of Clarke, Shore, Rhoades, Abrams, and Li (2003). They found that the majority of teachers they interviewed reported curricular changes associated with the state-mandated tests. Reported positive effects included “the removal of unneeded content, a renewed emphasis on important content, and the addition of important topics previously not taught,” while reported negative effects included “a narrowing of the curriculum, an overemphasis on certain topics at the expense of others, and an overcrowded curriculum” (p. 47).

In this study, all of the interview participants said that the state-mandated tests affected what they taught their students. Reported positive curricular changes resulting from the state-mandated tests included the addition of important topics not previously taught, an emphasis on important topics already taught, a curricular structure to guide what was taught, and a consistency in educational programs across the state. Reported negative curricular changes included the narrowing of the curriculum to focus on items assessed by the state-mandated tests, the loss of important topics of study, and an overcrowded curriculum.

The findings of this study regarding the effect of state-mandated testing on pedagogy are consistent with the findings of Clarke, Shore, Rhoades, Abrams, and Li

(2003) and Hoffman, Assaf, and Paris (2001). Clarke et al. found that the majority of teachers they interviewed changed their pedagogy in response to state-mandated tests. Reported positive changes included “renewed emphasis on writing, critical thinking skills, discussion, and explanation.” Reported negative changes included “reduced instructional creativity, increased preparation for tests, a focus on breadth rather than depth of content coverage, and a curricular sequence and pace that were inappropriate for some students” (p. 47). Hoffman, Assaf, and Paris found that teachers spent approximately 10 hours per week preparing students for the state-mandated tests, with the most common activities relating to test-specific practices such as reviewing how to mark the answer sheet.

In this study, eight of the 10 interview participants said that the state-mandated tests affected how they taught their students. Reported positive changes resulting from the state-mandated tests included using several strategies to teach a concept, emphasizing that there are multiple ways to solve a problem, asking students to explain their thinking when solving mathematics problems, and teaching students to make inferences and draw conclusions when reading. Reported negative changes included using several mandated district-level assessments, using worksheets that mirrored the language used on the state-mandated tests, asking the students questions in a scripted manner consistent with the state-mandated tests, teaching students test-taking strategies to prepare them for the assessments, and presenting the material too quickly for many of the students.

In sum, the findings of this study suggest that the state-mandated tests associated with NCLB affect curricula and pedagogy. Teachers interviewed for this study reported

positive and negative effects on curricula and pedagogy. These findings are consistent with the work of Clarke, Shore, Rhoades, Abrams, and Li (2003) and Hoffman, Assaf, and Paris (2001).

The Effect of Teacher Perceptions of Autonomy on Pedagogy and Professional Satisfaction

The findings of this study regarding the impact of teacher perceptions of autonomy on pedagogy and professional satisfaction are consistent with the findings of Kim and Loadman (1994), Pearson (1995), and Brunetti (2001). Kim and Loadman found that teachers with high perceptions of autonomy were more likely to use their judgment to guide instructional work with students than teachers with low perceptions of autonomy. Pearson and Brunetti found that teachers with high perceptions of autonomy experienced greater professional satisfaction than teachers with low perceived autonomy.

In this study, all five interview participants with high TAS scores said that they had some level of control over how they prepared their students for the state-mandated tests. The majority said that they did some test-specific practice as required by the school district, like working on multiple-choice questions, but that they primarily prepared their students by teaching them in a manner that allowed students to understand and retain the information. They all said that they used a variety of teaching techniques to meet the diverse needs of their students.

Four of the five participants with high TAS scores said that they were satisfied with the level of control they had over preparation practices. They mentioned having to use district-provided materials, but having the autonomy to make pedagogic decisions.

Three of the high autonomy participants commented on how they were allowed to use their judgment and background knowledge to make decisions regarding how to teach their students. The one person with a high autonomy score who was not satisfied with the level of perceived autonomy over test preparation practices for the state-mandated tests was EH, who would have preferred to have had more control over the selection of test preparation materials. As will be detailed in the limitation section of this chapter, EH's TAS score was 47, two points higher than the mean, which may explain why her responses to some items were not consistent with the other interview participants who scored high on the TAS.

Four of the interview participants with low scores on the TAS said that they had little control over how they prepared their students for the state-mandated tests. They said that they had control over how they presented the material to the students, but that the majority of the materials, assessments, and pacing timelines were distributed by the school district. This detracted from their perceptions of autonomy. One participant said that she had no control over how she prepared her students for the CMT.

Three of the five interview participants with low TAS scores were not satisfied with the level of control they had over preparation practices for the state-mandated tests. One participant with a low TAS score was satisfied and one did not know. The three who were not satisfied with their perceived autonomy over test preparation practices said that they would prepare their students better if they had more autonomy regarding what they taught their students and how they assessed their progress. One participant with a low TAS score said that she was not able to determine whether she would be more effective at

preparing her students for the tests if she had greater autonomy. One participant with a low TAS score, WL, said that she was satisfied with her control over test preparation practices. As will be detailed in the limitation section of this chapter, three people with TAS scores lower than WL refused to participate in the interviews. This may explain why her response to this item was not consistent with the responses of the majority of participants with low TAS scores.

In sum, the findings of this study suggest that teachers with high scores on the TAS perceived that they could use their professional judgment to prepare students for the state-mandated tests. Teachers with low scores on the TAS did not perceive that they had that autonomy. These findings are consistent with the findings of Kim and Loadman (1994), who found that teachers with high perceptions of autonomy were more likely to use their judgment to guide instructional work with students than teachers with low perceptions of autonomy. Four of the five teachers with high TAS scores were satisfied with the level of control they had over the preparation practices for the state-mandated tests. Three of the five teachers with low TAS scores were not satisfied with their control of preparation practices. These findings were consistent with the findings of Pearson (1995) and Brunetti (2001) who found that teachers with high perceptions of autonomy experienced greater professional satisfaction than teachers with low perceived autonomy.

The Effect of Teacher Perceptions of Efficacy on Instructional Reforms

The findings of this study contradict the findings of Raudenbush, Rowan, and Cheong (1992). They found that teachers who had the freedom to manipulate issues of pedagogy and classroom organization were more likely to feel that they successfully

taught their students than teachers without that autonomy.

In this study, teachers with low and high TAS scores had high perceptions of efficacy regarding teaching reading, writing, and mathematics and preparing their students for the CMT. Even interview participants who said that they had little or no control over pedagogic decisions regarding the state-mandated assessments had high perceived efficacy regarding how they prepared their students for the assessments. In this study, perceived autonomy did not appear to affect perceived efficacy regarding state-mandated tests.

The findings of this study contradict the findings of Guskey (1988), Ghaith and Yaghi (1997), and Charambous et al. (2004). All three of these research studies found that perceptions of teacher efficacy were related to teachers' willingness to implement instructional reforms. In these studies, teachers with high perceived efficacy were more likely to rate instructional reforms as important and less difficult to implement than teachers with low perceived efficacy.

In this study, the vast majority of interview respondents reported that the reforms associated with the state-mandated tests were challenging to implement. All 10 of the interview participants said that the state-mandated tests had an impact on the curricula. Eight of the 10 interview participants said that the state-mandated assessments affected their pedagogy. Nine of the 10 interview participants had negative reactions to the district-level assessments associated with the state-mandated tests and five of the interview participants said that the state-mandated tests negatively affected teaching and learning. However, all 10 of the interview participants said that they prepared their

students well or very well for the state-mandated tests. Thus, teacher perceptions of efficacy did not appear to influence teacher perceptions of new instructional reforms.

The Effect of Perceived Teacher Autonomy on Perceived Teacher Efficacy

The key finding of this study addresses how teacher perceptions of autonomy affect the ways they prepare their students for the state-mandated tests. The researcher anticipated teachers with low perceptions of autonomy as indicated by the TAS would have low perceptions of efficacy regarding student preparation for the CMT and the teaching of reading, writing, and mathematics. The researcher was surprised to discover that all of the interview participants, regardless of TAS scores, had high perceived efficacy regarding preparing their students for the CMT and teaching reading, writing, and mathematics. Since this study did not examine student achievement data, it was not possible to compare teacher efficacy perceptions with student data. However, there were interesting differences among the teachers that suggested schools should promote autonomy among their teachers, with the most significant stemming from how teachers prepared their students for the CMT.

Teachers with high scores on the TAS reported that their students were prepared for the CMT because of the authentic learning exercises that their students completed. All five of the teachers with high TAS scores said that their students were prepared for the tests because the students knew the concepts and skills assessed by the tests. They mentioned using a variety of strategies to teach their students the information; making certain their students understood the concepts; integrating reading, writing, and mathematics across the curricula; practicing certain skills everyday; and helping their

students learn the material for the tests and beyond. These approaches to preparing students for the CMT were different than the approaches utilized by teachers with low scores on the TAS.

The teachers with low TAS scores reported that they prepared their students well for the CMT because of the intensive content review sessions they facilitated with their students before the tests. These teachers said they prepared their students for the tests by teaching them test-taking tricks, reviewing student scores from prior iterations of the tests and focusing on areas of weakness, and having intensive CMT reviews in the weeks prior to the tests. All five teachers with low TAS scores mentioned how their students knew the material for the CMT but were not certain whether the students retained the knowledge after the tests.

This finding is significant. Students benefit from engaging in authentic learning exercises that allow them to construct an understanding of new skills and concepts. If students have a genuine understanding of the concepts and skills assessed by the state-mandated tests, they are more likely to do well on the assessments and, more importantly, retain that knowledge after the tests. The CMT preparation practices described by the teachers with high perceptions of autonomy are more appropriate for fostering authentic learning than the practices described by the teachers with low perceptions of autonomy (Renzulli, J., Gentry, M., & Reis, S, 2004; Herrington, J. & Oliver, R. 2000). Therefore, it is in the interests of students, teachers, schools, and school districts to consider teacher autonomy when creating preparation programs for state-mandated tests.

In sum, the findings of this study are consistent with the findings of Clarke et al.

(2003) and Hoffman, Assaf, and Paris (2001) who found that state-mandated tests affect curricula and pedagogy. The positive and negative effects on curricula and pedagogy identified in this study are similar to the ones identified by Clarke et al. The findings of this study are consistent with the findings of Kim and Loadman (1994), Pearson (1995), and Brunetti (2001) who found that teachers with high perceptions of autonomy were more likely to experience professional satisfaction and use their judgment when making pedagogic decisions.

The findings of this study contradict the findings of Raudenbush, Rowan, and Cheong (1992) who found that teachers with high perceptions of autonomy over issues of classroom organization and pedagogy were more likely to have higher efficacy perceptions than teachers with low perceptions of autonomy. In this study, teachers with high and low perceptions of autonomy had high perceptions of efficacy regarding preparing their students for the state-mandated tests. The findings of this study contradicted the findings of Guskey (1988), Ghaith and Yaghi (1997), and Charambous et al. (2004) who found that perceptions of teacher efficacy were related to teachers' willingness to implement instructional reforms. In this study, all 10 of the interview participants had high perceived efficacy regarding preparing their students for the state-mandated tests even though nine of the 10 interview participants reported being negatively affected by the district-mandated reforms associated with the tests.

The findings of this study suggest that teachers' perceptions of autonomy did not have a significant impact on their perceptions of efficacy regarding state-mandated testing or the teaching of reading, writing, and mathematics. However, perceptions of

autonomy may have affected how teachers prepared their students for the state-mandated tests. In this study, teachers with high perceptions of autonomy prepared their students for the CMT with what they thought were authentic learning exercises. Teachers with low perceived autonomy prepared their students with what they described as intensive review sessions prior to the tests and test-taking tips. Therefore, teacher perceptions of autonomy should be considered when districts are deciding on the best way to prepare students for state-mandated tests.

Study Limitations

This study had four limitations that detracted from the findings. First, the sample size for the study was small and taken from only one school district. Additional studies with a larger sample sizes that include greater racial and economic diversity may produce statistically significant findings. The small sample size prevents the conclusions from this study from being generalized.

The second limitation of this study was that study participants were elementary school teachers in a Connecticut public school district that employed a relative of the researcher. The relative did not work in any of the schools used in the study, did not evaluate or supervise any potential participants, and did not participate in any aspect of the study. In addition, the researcher was a student at one of the elementary schools that participated in the study. None of the researcher's former teachers completed the TAS or participated in the interviews.

The third limitation of this study involved the selection of the people for the interviews. The researcher gave the participants the 20-item TAS and used those data to

calculate total autonomy scores. He selected the 10 people for interviews based on those TAS scores. When examining the survey data, the researcher found two items that solicited responses that were inconsistent with the rest of the responses on the instrument. The researcher noted that the two items had very low item-total correlations and removed them from the results. After removing the two items and recalculating the total autonomy scores, the researcher identified three people who had not been invited to participate in the interviews initially but had recalculated TAS scores higher than one of the interview participants with high perceived autonomy, EH. EH's TAS score was 47, which was close to the mean of 45. This may be why some of EH's interview responses were not consistent with the other members of the high perceived autonomy group.

The fourth limitation of the study related to the high number of people with high and low TAS scores who did not participate in the interviews. The researcher intended to solicit information from people with significantly different perceptions of autonomy during the telephone interviews. Unfortunately, this was not possible because of the high number of people with extreme TAS scores who did not participate in the interviews. Six people with high autonomy scores (59, 58, 55, 55, 53, and 51) and three people with low autonomy scores (27, 30, and 35) declined the invitation to participate in the interviews. In addition, three people with high autonomy scores (59, 54, 55) could not participate in the interviews because they had not administered the state-mandated tests associated with NCLB.

The lack of people with high and low perceived autonomy scores to participate in the follow-up interviews affected the study in two ways. First, since a large number of

survey respondents with the highest and lowest autonomy scores did not participate in the interviews, the interview data were collected from survey respondents with TAS scores close to the mean (45). This resulted in some findings being less clear than they might have been if people with the highest and lowest TAS scores participated in the interviews. Second, four of the five interview participants with low TAS scores were from the same school, BES. This would not have been the case if the three participants with lower TAS scores participated in the interviews since they were from schools other than BES.

Implications for Practice

There are three implications for practice that stem from the findings of this study: managing district-level mandates, increasing teacher perceptions of autonomy, and understanding assessment and the role of state-mandated tests. The rationale for each, based on the findings of this study, will be presented along with recommendations to improve practice.

Management of District-Level Mandates

The vast majority of teachers expressed concerns about being overwhelmed by district-level assessments related to the state-mandated tests. Nine of the 10 teachers who participated in the interviews said that their least favorite part of teaching was the district-level requirements relating to the state-tests. Eight of the 10 interview participants specifically mentioned the challenges of managing the district-level assessments. They commented on the stress of fitting the district-level assessments into the curricula, the

loss of instructional time due to the need to manage the paperwork associated with district-level assessments, the loss of instructional creativity stemming from the need to administer the district-level assessments, a lack of time to correct and record all of the district-level assessments, and the loss of autonomy regarding assessment decisions. Even the interview participants who said that the state-mandated tests had a primarily positive impact on teaching and learning, and the participants who said that the state-mandated tests significantly improved their instruction, expressed frustration with the number of CMT-related requirements placed on them by the school district. None of the interview participants said that the district-level assessments informed their instruction.

The district-level assessments were administered by all teachers of grade 3 through 6 in Eagleton. The assessments were not associated with the CMT, but they assessed the skills and concepts measured by the CMT. All students in each grade took the assessments at approximately the same time during the school year. The purpose of the assessments was to increase the likelihood that students were taught the material assessed by the tests; provide teachers with data to inform their instruction; and give teachers, curriculum coordinators, and administrators data on student performance on common assessments other than the CMT. However, nine of the 10 teachers interviewed for this study were overwhelmed by the frequency and requirements of the district-level assessments. According to the interview participants, Eagleton teachers were required to give approximately two district-level assessments per month in reading, writing, and mathematics. Seven interview participants commented on the perception of an ever-increasing number of district-level assessments.

The first recommendation to address teacher concerns about being overwhelmed by district mandates is to reduce the number of mandatory district-level assessments. Periodic district-level assessments are beneficial because they give teachers, administrators, curriculum coordinators, and students an idea of student mastery of specific concepts and skills across the grade levels at certain points in the school year. However, too many district-level assessments take away instructional time and overwhelm teachers and students. Teachers should give district-level assessments frequently enough to inform practice and provide information on progress, but not so often that teachers and students feel overwhelmed. Curriculum coordinators, administrators, and teachers can find that balance through better planning and communication.

The second recommendation to address teacher concerns about being overwhelmed by district mandates is to improve planning and communication among district-level personnel and between district-level personnel and teachers. According to the interview participants, district personnel determined the skills and concepts measured by district-level assessments. Teachers were not included in the conversations. This was problematic for three reasons. First, teachers knew their students' strengths and weaknesses relative to the learning expectations. Second, teachers had a foundation of knowledge acquired through undergraduate and graduate programs and classroom experiences that would have been beneficial to the conversation regarding what was assessed, and how that material was assessed, by district-level tests. Third, teachers were the people administering the assessments and, ideally, using the data to inform their

classroom practices. They were the people best able to identify how to organize the district-level assessment schedule. Including teachers in the conversations regarding district-level assessments would be beneficial for those reasons and because their perceptions of autonomy might increase. As indicated later in this section, increasing teacher autonomy is one of the recommendations for practice.

Administrators, curriculum coordinators, and teachers should meet to discuss the best way to administer district-level assessments. They should use data from prior iterations of state-mandated tests and district-level assessments, along with teacher feedback, to determine what specific skills and concepts should be assessed with district-level tests. Once they determine what will be assessed, they should create an all-subject district-level master assessment calendar for each grade level by academic year. The calendar should list the dates for each district-level assessment teachers are required to administer during the year. This would be beneficial because everyone could see the collective district-level requirements placed on teachers and students during the year. A draft calendar should be distributed for review in the spring of the prior school year. Feedback from teachers and principals should be collected and analyzed, and changes made to the calendar. The final draft of the calendar should be distributed at the start of the school year so teachers can backwards plan. Once the calendar is distributed, it should not be changed. This process would increase the likelihood that students are taught the skills and concepts measured by the CMT and teachers use the data to inform instruction. It would provide teachers, administrators, and curriculum coordinators with student

achievement data on common assessments other than the CMT and it would increase teacher autonomy.

In sum, the vast majority of teachers in this study expressed concern over the number of district-level assessments relating to the state-mandated tests. Administrators, curriculum coordinators, and teachers can address this concern by reducing the number of mandated assessments placed on teachers by the school district and creating a calendar of dates for the mandated assessments at the start of the school year. This will give curriculum coordinators assessment data on students by grade level, give teachers the ability to plan for the district-level assessments, and provide teachers and students with information on student progress with important academic skills and concepts. These changes may reduce teacher concerns about district-level mandates and increase teacher perceptions of autonomy.

Increasing Teacher Perceptions of Autonomy

The findings of this study suggest that teachers with high perceived autonomy, as determined by the TAS, viewed the state-mandated tests more favorably than teachers with low perceived autonomy. Teachers with high TAS scores tended to report that the state-mandated tests had less of an impact on their classroom practices than teachers with low TAS scores. Teachers with high TAS scores tended to say that their students performed well on the state-mandated tests because the students engaged in authentic learning exercises rather than drills and intensive reviews; that the state-mandated tests assessed the reading, writing, and mathematics curricula rather than being an addition to the curricula; and that the state-mandated tests had mostly positive effects on education.

Therefore, it would benefit schools to increase teacher autonomy.

The first recommendation to increase teacher perceptions of autonomy is to give teachers more control over instructional decisions, including assessment techniques and aspects of curricula. The vast majority of TAS respondents had high autonomy perceptions regarding classroom management, use of classroom space, and teaching strategies. The vast majority of TAS respondents had low autonomy perceptions regarding what they teach their students and the assessment techniques they use in their classes. This information was confirmed by data collected during the follow-up interviews.

Promoting teacher autonomy in the era of standardization is complex. According to NCLB, learning expectations are dictated by each state. Annual state-mandated assessments measure students' mastery of the learning expectations outlined by the states. Therefore, teachers must teach what the states expect them to teach. However, they are not limited to teaching only what is presented in the learning expectations.

The content mandated by the state-established learning expectations represents the foundation of what students must learn at each grade level. Students must leave each grade level with experience with the mandated learning expectations. However, teachers should have the discretion to teach beyond what is expressed in the learning expectations. They should have the autonomy to decide what additional skills and concepts would benefit their students and be able to teach them that material. In addition, students should have some autonomy regarding what they want to learn because it will increase their motivation to learn and promote independent study skills (Kondor, 2007; Walsh, 2003).

Teachers should have more autonomy regarding instructional practices and assessment techniques because of the dynamic relationship between the two; effective teachers use assessment to inform instruction. Teachers understand their students' learning styles, academic strengths, and academic deficits. They have a foundation of knowledge about best practices and practical knowledge regarding how to help children succeed. They should have the autonomy to use their expertise to design and implement instructional programs and assessment measures that meet the needs of their students. Administrators and curriculum coordinators should give teachers instruction and assessment materials to use in their classrooms and the discretion to use the majority of them in accord with their professional judgment. As was mentioned previously, periodic district-level assessments are good data sources, but the majority of assessments should be designed and implemented by teachers.

The second recommendation to increase teacher perceptions of autonomy is to hold teachers accountable for their instruction and assessment decisions. According to the TAS and follow-up interviews, the vast majority of participants have high perceived autonomy regarding instructional practices and low perceived autonomy regarding assessment and curriculum. Teachers should be given greater autonomy to make decisions regarding assessment and aspects of curricula since they understand their students' needs and have the academic and practical knowledge to help their students succeed. Administrators and teachers should make developing instruction and assessment practices professional goals for teachers.

Goal development should be a collaborative process between the teacher and the principal. If the teacher has an area of weakness as indicated by the state-mandated tests, district-level assessments, principal observations, teacher reflections, and/or other measures deemed appropriate by the teacher and the principal, then the goals should focus on improving that area of weakness. Progress with the goal should be directly related to student performance as indicated by a variety of assessments. Administrators should expect teachers to continually develop their teaching and assessing practices, but they should give them the freedom to grow as educators in the manners that they select. However, if there is a persistent lack of improvement, the principal should become more directive.

Teachers should only lose autonomy over the majority of classroom decisions if areas of weakness in their practices persist after the principal provides opportunities for professional growth. Each teacher and situation should be addressed individually. In general, if a teacher has a weakness in his or her practice that negatively affects student learning, the principal must be direct with the teacher. The principal should outline the teaching practices he or she expects the teacher to utilize with students and monitor the teacher's development. If the teacher is able to successfully master teaching practices that address the area of weakness, the principal should return autonomy to the teacher. If not, the principal should continue to provide direct support and professional development opportunities. In addition, the principal should consider additional administrative options, including dismissal of the teacher (Platt, Tripp, Ogden, & Fraser, 2000).

The third recommendation to increase teacher perceptions of autonomy is to create a professional learning community within the school. Administrators should foster a collaborative environment where teachers feel comfortable discussing strengths and weaknesses of their instructional practices with their colleagues. They should use professional development time and faculty meetings to talk about student work and ways to improve teaching practices. They should create time each week for grade-level teams to discuss specific strategies used to teach concepts and skills mandated by the state curriculum frameworks. Teachers should have copies of their students' scores from previous iterations of the state-mandated tests, progress reports, report cards, anecdotal teacher records, district-level assessments, parent information about the students, student self-evaluations, and other forms of assessment. Administrators should find time for current and former teachers to meet and discuss the assessment information. This may help teachers learn strategies to better teach their students.

In sum, the findings of this study suggest that teachers with high perceptions of autonomy as measured by the TAS viewed the state-mandated tests more favorably than teachers with low perceptions of autonomy. Therefore, administrators should find ways to increase teacher perceptions of autonomy. The three recommendations presented here give teachers autonomy over instruction, assessment, and aspects of curriculum; make teachers accountable for those decisions; and foster collaborative professional learning communities in schools. These recommendations may help increase teacher perceptions of autonomy and change teacher beliefs about the role of the state-mandated tests.

Understanding Assessment and the Role of State-Mandated Tests

The third implication for practice focuses on changing teacher perceptions of the role of the state-mandated tests. All five of the interview participants with low scores on the TAS viewed the state-mandated tests as an addition to the curriculum. They commented on how their teaching objectives focused on skills and concepts assessed by the state-mandated tests at the exclusion of other learning objectives that the teachers viewed as important. They said that they were more efficacious teachers of reading, writing, and mathematics when they did not have to prepare their students for the state-mandated tests.

The first recommendation to help teachers understand assessment and the role of the state-mandated tests is for administrators to talk with teachers about NCLB. Teachers would benefit from knowing how NCLB affects what they teach their students. NCLB requires states to establish challenging standards in language arts and mathematics for each grade level. School districts must align their curricular expectations with the state frameworks. The state-mandated tests measure student mastery of the concepts and skills outlined in the state frameworks. Therefore, teachers who prepare their students for the state-mandated tests are teaching what the students need to know and be able to do at that grade level. As was mentioned previously, the state-mandated learning expectations are the foundation of what students should know and be able to do at each grade level. While the majority of students' time should be spent on those concepts and skills, teachers should have the discretion to add content and skills based on student needs and interests.

They should also know when during their elementary education students will learn those concepts and skills.

Administrators should provide teachers with the “big picture” of regular education students’ educational programs at the school. They should review with teachers the grade-level learning expectations in mathematics and language arts for each grade taught at the school. Teachers may be less concerned about their inability to teach a concept or skill they consider important if they know how that topic fits into the whole-school curricular map.

The second recommendation to help teachers understand assessment and the role of the state-mandated tests is for administrators to facilitate conversations with teachers about assessment. Administrators should help teachers understand that the state-mandated tests are one facet of ongoing comprehensive assessment programs. Standardized test scores provide teachers with objective information about student performance in mathematics and English. These data are valuable because teacher assessments of student performance are usually enmeshed in teacher observations of academically related behaviors, such as attention span and persistence (Pedulla, Airasian, & Madaus, 1980).

One way to underscore the formative nature of the state-mandated tests is to help teachers learn how to use the data to inform instruction. Teachers can use the data to identify student strengths and weaknesses and to identify areas of strength and weakness regarding their classroom practices. Based on those data and other data sources, such as teacher observations of student performance, principal observations, and teacher

reflections on instruction and assessment practices, teachers and administrators can identify areas of growth and strategies for improvement.

In sum, interview participants with low scores on the TAS tended to view the state-mandated tests as additions to the curricula that took away from other important topics of study. Administrators can address this by helping teachers understand the role of state-mandated tests in an ongoing comprehensive assessment program. They can do that by explaining the effect of NCLB on curricula and teaching teachers how to use the results of state-mandated tests to improve teaching and learning.

Three implications for practice have been identified from the results of this study: management of district-level mandates, increasing teacher perceptions of autonomy, and understanding assessment and the role of state-mandated tests. Teachers may feel less overwhelmed by district-level mandates if administrators and curriculum coordinators reduce the number of assessments they require teachers to administer; include teachers in the conversation regarding what should be assessed, when, and how; and distribute a calendar of dates for the assessments at the start of the school year. Administrators may be able to increase teacher perceptions of autonomy by giving teachers greater control over instruction, assessment, and aspects of curriculum; holding teachers accountable for those decisions; and developing professional learning communities in schools.

Administrators can help teachers understand the role of the state-mandated tests as assessment tools by explaining the effect of NCLB on curricula and teaching teachers how to use the results of state-mandated tests to improve teaching and learning. These recommendations, which are based on the findings of this study and the research

reviewed in Chapter 2 of this thesis, may help teachers and students better manage the instructional reforms associated with state-mandated tests.

Implications for Public Policy

Broadly stated, the purpose of standards-driven education reform is to identify what students should know and be able to do and use data to monitor student progress with those learning goals (Malone & Nelson, 2006). In Connecticut, the primary data source used to assess student progress with the state-established learning expectations is the CMT. The findings of this study suggest that standards-driven reform has a significant impact on daily educational practice. All 10 of the interview participants said that the state-mandated tests had an impact on what they taught their students. Eight of the 10 interview participants said that the CMT had an impact on how they taught their students, particularly regarding curriculum and assessment.

The results of this study suggest that the curricular and pedagogic changes resulting from the state-mandated assessments had positive and negative effects on teaching and learning. Five of the interview participants said that the state-mandated tests had a mostly positive effect on teaching and learning. Three participants said that the tests had positive and negative effects, and two participants said that the CMT had a mostly negative impact on education.

Reported positive effects included adding important topics not previously taught, emphasizing important topics already taught, receiving a structure to guide what was taught, knowing there is consistency in educational programs across the state, using several strategies to teach a concept, emphasizing multiple ways to solve a problem,

asking students to explain their thinking when solving mathematics problems, and teaching students to make inferences and draw conclusions when reading.

Reported negative changes included the narrowing of the curriculum to focus on items assessed by the state-mandated tests, losing important topics of study, overcrowding of the curriculum, using worksheets that mirrored the language used on the state-mandated tests, asking the students questions in a scripted manner consistent with the state-mandated tests, teaching students test-taking strategies to prepare them for the assessments, managing several district-level assessments and the associated paperwork, and presenting the material too quickly for many of the students.

The noted positive effects of standards-based reform are beneficial for all students. However, many students, particularly students with disabilities and English Language Learners, may suffer because of the reported negative consequences resulting from the state-mandated tests. The policy goal of making certain all students are making adequate academic progress is appropriate, but there are many practical considerations with achieving that goal (Pullin, 2005). Students with disabilities and English Language Learners are particularly susceptible to non-authentic learning activities, overcrowded curricula, and rapid-pace instruction and they are less likely to be able to successfully demonstrate what they know and can do on standardized tests like the CMT (Holbrook, 2001).

Connecticut lawmakers made provisions regarding the state-mandated tests for students with disabilities and English Language Learners. Students with disabilities may take the standard CMT, take the CMT with accommodations, take an alternative

assessment, and/or be exempt from the tests depending on the student's unique learning needs. English Language Learners may be exempt from certain tests depending on their language proficiency and the length of their time in America. These policies were enacted to balance the state's interest in assessing the progress of all students with the students' interests in being fairly and accurately assessed. What is not clear is whether these provisions are striking that balance (Koretz & Barton, 2004).

Policymakers and educators should monitor the progress of all students to make certain they are making progress with the state's learning expectations. They should pay particular attention to students with disabilities and English Language Learners. Policymakers and educators must ensure that these students have access to appropriate curricula and instruction. They must also ensure that these students are given the opportunity to demonstrate what they know and can do on state-mandated assessments.

Implications for Further Research

The first recommendation for further research is to conduct studies similar to this one in a variety of school districts. One of the limitations of this study was that it took place in a middle-class suburban school district with limited racial and socio-economic diversity. It would be interesting to collect TAS scores and interview data from teachers working in urban and rural school districts, and in affluent and impoverished school districts. These data could be compared to identify the similarities and differences among teachers of different populations.

The second recommendation for further research is to conduct a similar study with a large enough sample to find statistical significance and generalize the findings.

The sample size in this study was too small to find statistical significance or to generalize the findings. A larger sample size may produce findings that inform practice.

The third recommendation for further research is to conduct a study that examines teachers' perceptions of autonomy, perceptions of efficacy, and student scores on the state-mandated tests. This study focused exclusively on teacher perceptions of autonomy and efficacy. It would be beneficial to study the relationships among teacher perceptions of autonomy, teacher perceptions of efficacy, and student scores on the state-mandated tests.

The fourth recommendation for further research is to conduct a study to determine the perceptions of superintendents, curriculum coordinators, and other administrators of teachers' intellectual and professional capacities. In this study, four of the interview participants mentioned that they experienced a decrease in autonomy over the course of their teaching careers. These teachers had master's degrees and years of teaching experience, so it is intuitive that they would have experienced an increase in autonomy as their careers progressed. It would be interesting to see if administrators' and curriculum coordinators' perceptions of teachers' efficacy affect how much autonomy they give teachers over curricular and pedagogic decisions.

Conclusion

The No Child Left Behind Act directs states to establish annual assessments to measure student mastery of state-established learning expectations. Public school students in grades 3 through 8, with few exceptions, take a series of state-mandated assessments each year; students in grades 10 through 12 take a series of state-mandated

assessments at least once during those years. NCLB and state laws dictate considerable consequences for students, teachers, and administrators if students do not perform well on the assessments.

Research suggests that the standardized tests associated with NCLB affect curricula and pedagogy (Clarke, Shore, Rhoades, Abrams, Miao, and Li, 2003; Hoffman, Assaf, and Paris 2001). What is not known is the level of control teachers believe they have over the curricular and pedagogic changes and how that level of perceived control affected teachers' perceptions of their ability to prepare students for the state-mandated tests. The purpose of this research study was to examine how teachers' perceptions of autonomy affect their perceptions of efficacy regarding state-mandated testing.

The researcher collected data from public school teachers in a Connecticut suburban city. He used the Teaching Autonomy Scale (TAS) (Pearson & Hall, 1993) (Appendix A) to measure perceptions of autonomy of reading, writing, and mathematics teachers working with grades 3 through 6. There were a total of 104 possible participants in the study; 67 (64%) people successfully completed the survey. The researcher calculated total autonomy scores and selected 10 people, five with high TAS scores and five with low TAS scores, for interviews. The interviews probed the reasons for their autonomy perceptions and collected data on their efficacy perceptions regarding the teaching of reading, writing, and mathematics and preparing students for the state-mandated tests.

The results of this study suggest that teacher perceptions of autonomy regarding test preparation for the state-mandated tests do not affect teacher perceptions of efficacy

regarding preparing their students for the tests. However, the findings suggest teacher autonomy could be related to how teachers view state-mandated tests. Teachers with high perceived autonomy tended to report that the CMT had less of an impact on their classroom practices; that they were given a significant number of resources from administration but that they had some discretion regarding how to use them in their classes; that their students performed well on the CMT because the students engaged in authentic learning exercises that taught the students the skills and concepts assessed by the CMT; that the CMT was an assessment of the reading, writing, and mathematics curricula; and that the state-mandated tests had mostly positive effects on education.

The researcher made three recommendations for practice based on the findings of the study. First, districts should limit the number of assessments they mandate teachers give each year, include teachers in the conversation about the assessments, and give teachers a calendar of assessment dates at the start of the school year. Second, administrators should increase teacher perceptions of autonomy by giving them control over instruction, assessment, and aspects of curriculum; holding them accountable for those decisions; and developing professional learning communities. Third, administrators should help teachers understand the role of state-mandated tests in an ongoing comprehensive assessment program.

The results from the interviews suggest that the standards-based reform movement has positive and negative effects on teaching and learning. The positive effects are beneficial for all students. The negative effects may harm some students, particularly students with disabilities and English Language Learners. Policymakers should monitor

the progress of these students to make certain the safeguards put in place to prevent them from being inaccurately assessed by the state-mandated tests are working and that all students have the opportunity to demonstrate what they know and can do.

The sample size was too small for the results of this study to be statistically significant or generalizable. Additional studies with larger sample sizes may provide insight into the findings of this study. Additional research with economically and culturally diverse schools may be helpful in understanding how standards-based reform initiatives affect different communities of learners. Since this study focused exclusively on teacher perceptions of autonomy and efficacy, it would be beneficial to conduct a study that also included student achievement data. Finally, it would be beneficial to conduct a study of superintendent and other administrators' perceptions of teachers' intellectual and professional capacities and how those beliefs affect policies relating to teacher autonomy.

Improving student achievement is at the center of standards-based reform. Highly qualified teachers who care about their students' success are essential to improving student achievement. The public schools of Eagleton have many such teachers. The researcher was consistently impressed by the professionalism demonstrated by the Eagleton teaching faculty. The interview participants expressed their dedication to their students and their comments underscored the inherent conflict between teacher autonomy and standardization.

The purpose of the NCLB mandates is to close the achievement gap by increasing accountability for student achievement. The ability of the NCLB mandates to achieve that

goal is debatable. One consequence of the NCLB mandates that is not debatable is the increased scrutiny of what and how teachers teach. This scrutiny, as the findings of this study suggest, results in the significant involvement of administrators in teachers' classroom practices and loss of perceived teacher autonomy.

The data from the TAS and from the follow-up interviews suggest that teachers have limited perceived autonomy regarding curriculum and assessment. The vast majority of TAS respondents and interview participants reported that they were told what to teach and given the assessments to use with their students. This loss of perceived autonomy regarding curriculum and assessment is a paradigm shift that highlights the debate over teaching as a profession.

One characteristic of a profession is that members have a significant amount of autonomy regarding their work (Bayles, 1981). Prior to NCLB, the majority of public school teachers enjoyed considerable autonomy regarding the three key elements of teaching and learning: curriculum, assessment, and instruction. Traditionally, effective teachers monitored the dynamic relationships among what they taught, how they taught, and student achievement and made changes to all three based on students' needs. The external influences that shape post-NCLB classrooms afford teachers autonomy regarding their instructional practices, but limit their control over curriculum and assessment. This changes the role of the teacher from a professional using his or her judgment to foster students' learning to a production worker implementing a series of directives to maximize test scores. This is not good for teachers, students, or the future of American public education (Cochran-Smith, 2006).

One of the recommendations of this study is to increase teacher autonomy over the three key elements of teaching and learning. Administrators can do this by encouraging teachers to teach beyond the learning expectations, giving teachers autonomy over the majority of classroom assessments, and continuing to allow teachers to use their judgment when selecting instructional practices. This may foster professional satisfaction among teachers by shifting their self-perceptions from that of automata engaged in the district-mandated tasks associated with preparing students for state-mandated tests to professionals with a repertoire of knowledge and skills they may use to help their students succeed in school. Public school teachers have demonstrated their knowledge and competence by completing rigorous programs of study, working as student teachers, and taking licensing exams. They have earned the privilege to exercise their professional judgment when working with their students. This may improve teaching and learning and help educators achieve the NCLB goal of closing the achievement gap.

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APPENDIX A

Teaching Autonomy Scale (TAS) (Pearson & Hall, 1993)

Read each item and circle the number that corresponds with your agreement with the statement.

1 definitely true

2 more or less true

3 more or less false

4 definitely false

1. I am free to be creative in my teaching approach.

1 2 3 4

2. The selection of student-learning activities in my class is under my control.

1 2 3 4

3. I seldom use alternative procedures in my teaching.

1 2 3 4

4. Standards of behavior in my classroom are set primarily by me.

1 2 3 4

5. My job does not allow for much discretion on my part.

1 2 3 4

6. In my teaching, I use my own guidelines and procedures.

1 2 3 4

7. In my situation, I have little say over the content and skills that are selected for teaching.
- 1 2 3 4
8. The scheduling of use of time in my classroom is under my control.
- 1 2 3 4
9. My teaching focuses on those goals and objectives that I select for myself.
- 1 2 3 4
10. I follow my own guidelines on instruction.
- 1 2 3 4
11. In my situation, I have only limited latitude in how major problems are resolved.
- 1 2 3 4
12. What I teach in my class is determined for the most part by me.
- 1 2 3 4
13. In my class, I have little control over how classroom space is used.
- 1 2 3 4
14. The materials I use in my class are chosen for the most part by me.
- 1 2 3 4
15. The evaluation and assessment activities used in my class are selected by people other than me.
- 1 2 3 4
16. I select the teaching methods and strategies I use with the students.
- 1 2 3 4

17. I have little say over the use of time in my classroom.

1 2 3 4

18. The content and skills taught in my class are those I select.

1 2 3 4

APPENDIX B

Teacher Responses to the 18-Item TAS Used to Calculate Autonomy Scores

<i>Item</i>	DTrue	M/L T	M/L F	D Fal	Mean
1. I am free to be creative in my teaching approach.	18 26.9%	39 58.2%	10 14.9%	0 0%	3.11
2. The selection of student-learning activities in my class is under my control.	7 10.4%	38 56.7%	19 28.4%	3 4.5%	2.73
3. I seldom use alternative procedures in my teaching.	4 6%	23 34.3%	27 40.3%	13 19.4%	2.26
4. Standards of behavior in my classroom are set primarily by me.	27 40.3%	38 56.7%	2 3%	0 0%	3.37
5. My job does not allow for much discretion on my part.	4 6%	27 40.3%	26 38.8%	10 14.9%	2.37
6. In my teaching, I use my own guidelines and procedures.	5 7.5%	41 61.2%	17 25.4%	4 6%	2.70
7. In my situation, I have little say over the content and skills that are selected for teaching.	34 50.7%	28 41.8%	5 7.5%	0 0%	3.43
8. The scheduling of use of time in my classroom is under my control.	4 6%	23 34.3%	27 40.3%	13 19.4%	2.27
9. My teaching focuses on those goals and objectives that I select for myself.	1 1.5%	16 23.9%	31 46.3%	19 28.4%	1.98

<i>Item</i>	<i>DTrue</i>	<i>M/L T</i>	<i>M/L F</i>	<i>DFal</i>	<i>Mean</i>
10. I follow my own guidelines on instruction.	4	28	27	8	2.41
	6%	41.8%	40.3%	11.9%	
11. In my situation, I have only limited latitude in how major problems are resolved.	6	29	30	2	2.58
	9%	43.3%	44.8%	3%	
12. What I teach in my class is determined for the most part by me.	2	8	36	21	1.87
	3%	11.9%	53.7%	31.3%	
13. In my class, I have little control over how classroom space is used.	2	6	31	28	1.73
	3%	9%	46.3%	41.8%	
14. The materials I use in my class are chosen for the most part by me.	3	20	36	8	2.27
	4.5%	29.9%	53.7%	11.9%	
15. The evaluation and assessment activities used in my class are selected by people other than me.	15	43	8	1	3.07
	22.4%	64.2%	11.9%	1.5%	
16. I select the teaching methods and strategies I use with the students.	13	46	7	1	3.06
	19.4%	68.7%	10.4%	1.5%	
17. I have little say over the use of time in my classroom.	12	28	22	5	2.70
	17.9%	41.8%	32.8%	7.5%	
18. The content and skills taught in my class are those I select	2	8	36	21	1.87
	3%	11.9%	53.7%	31.3%	

APPENDIX C

Teacher Responses to the Original 20-Item TAS

<i>Item</i>	<i>D True</i>	<i>M/L T</i>	<i>M/L F</i>	<i>D Fal</i>	<i>Mean</i>
1. I am free to be creative in my teaching approach.	18 26.9%	39 58.2%	10 14.9%	0 0%	3.11
2. The selection of student-learning activities in my class is under my control.	7 10.4%	38 56.7%	19 28.4%	3 4.5%	2.73
3. My teaching primarily follows approaches that are specified by the school (removed).	34 50.7%	28 41.8%	5 7.5%	0 0%	3.43
4. I seldom use alternative procedures in my teaching.	4 6%	23 34.3%	27 40.3%	13 19.4%	2.26
5. My instructional plan is dictated by district needs (removed).	39 58.2%	26 38.8%	2 3%	0 0%	3.55
6. Standards of behavior in my classroom are set primarily by me.	27 40.3%	38 56.7%	2 3%	0 0%	3.37
7. My job does not allow for much discretion on my part.	4 6%	27 40.3%	26 38.8%	10 14.9%	2.37

<i>Item</i>	<i>DTrue</i>	<i>M/L T</i>	<i>M/L F</i>	<i>D Fal</i>	<i>Mean</i>
8. In my teaching, I use my own guidelines and procedures.	5 7.5%	41 61.2%	17 25.4%	4 6%	2.70
9. In my situation, I have little say over the content and skills that are selected for teaching.	34 50.7%	28 41.8%	5 7.5%	0 0%	3.43
10. The scheduling of use of time in my classroom is under my control.	4 6%	23 34.3%	27 40.3%	13 19.4%	2.27
11. My teaching focuses on those goals and objectives that I select for myself.	1 1.5%	16 23.9%	31 46.3%	19 28.4%	1.98
12. I follow my own guidelines on instruction.	4 6%	28 41.8%	27 40.3%	8 11.9%	2.41
13. In my situation, I have only limited latitude in how major problems are resolved.	6 9%	29 43.3%	30 44.8%	2 3%	2.58
14. What I teach in my class is determined for the most part by me.	2 3%	8 11.9%	36 53.7%	21 31.3%	1.87

<i>Item</i>	<i>D True</i>	<i>M/L T</i>	<i>M/L F</i>	<i>D Fal</i>	<i>Mean</i>
15. In my class, I have little control over how classroom space is used.	2 3%	6 9%	31 46.3%	28 41.8%	1.73
16. The materials I use in my class are chosen for the most part by me.	3 4.5%	20 29.9%	36 53.7%	8 11.9%	2.27
17. The evaluation and assessment activities used in my class are selected by people other than me.	15 22.4%	43 64.2%	8 11.9%	1 1.5%	3.07
18. I select the teaching methods and strategies I use with the students.	13 19.4%	46 68.7%	7 10.4%	1 1.5%	3.06
19. I have little say over the use of time in my classroom.	12 17.9%	28 41.8%	22 32.8%	5 7.5%	2.70
20. The content and skills taught in my class are those I select	2 3%	8 11.9%	36 53.7%	21 31.3%	1.87

APPENDIX D

Interview Protocol

Hi, this is Allan Cameron from Boston College, am I speaking with [participant's name]? Great! Thank you for taking the time to complete the Teaching Autonomy Scale. Your responses will add so much to my project!

As you may remember from the consent form, I am studying the relationship between a teacher's perceptions of control over what they teach and how they teach, and teacher beliefs about how well he or she prepares his or her students for the CMT. I hope to gather additional insight through our conversation today. I have 12 questions that I want to ask you that are related to teaching and learning. There are no right or wrong answers to these questions. I'm interested in hearing about your experiences. The whole conversation should take about 30 minutes. Do you have any questions?

Just like the survey, everything you tell me during this conversation is confidential. All records of this conversation will be kept in a locked file cabinet in a locked office that only I can access. Your name and the name of your school will not be released. Your participation is voluntary. You and your school will be given pseudonyms in my dissertation and any subsequent publications. You may stop the conversation at any time for any reason. Your participation will have no bearing on your relationship with Shelton Public Schools or with Boston College. Do you have any questions?

With your permission, I would like to tape record our conversation. My assistant, who is my mother-in-law, and I will be the only people to listen to the tapes. My assistant is going to help me transcribe the conversation. She will listen to the tape and type

everything that we say so that I have an accurate record that is easy to review. I will destroy the tapes and transcripts at the conclusion of the study. May I tape record this conversation? [If yes, turn on tape. If no, say, “That’s fine. I am going to take notes of our conversation. I may ask you to slow down or repeat things so that my notes are accurate.”] Let’s begin.

1. I want to know a little bit about you and why you became a teacher. Would you please tell me your age, the grades you have taught, how long you have taught, where you went to school, and why you become a teacher?
2. What are your favorite parts of being a teacher?
3. What are your least favorite parts of being a teacher?
4. Do you think the CMT has had a positive or negative impact on how well you teach reading, writing, and math? Please explain?
5. Does the CMT affect WHAT (curricula) you teach? Please give me some examples.
6. Does the CMT affect HOW (pedagogy) you teach? Please give me some examples.
7. Are there any unspoken or spoken directives by supervisors to prepare students for the CMT in a particular way? How do you respond to these directives? How do they impact your classroom teaching?
8. Please rate your perception of how much control you have over test preparation (i.e. choosing the topics of study, lessons taught, materials used, etc.) for the CMT on a scale of 1-4, with 4 being total control, 3 being some control, 2 being little control, and 1 being no control. Please explain your rating.
9. Do you think the level of control you have over what and how you teach makes you

more or less effective at preparing your students for the CMT? Please explain.

10. Please rate how effective you are at preparing your students for the CMT on a scale of 1-4, with 4 being very well, 3 being well, 2 being not well and 1 being poorly. Please explain your rating.

11. Please rate how effective you are at teaching your students reading, writing, and math on a scale of 1-4, with 4 being very well, 3 being well, 2 being not well and 1 being poorly.

12. Does the CMT help you teach reading, writing, and math? Please explain.

13. Is there anything I have not asked you that will help me understand your thoughts about how much control you have over what and how you teach and how well you prepare your students for the CMT?

That was the last question. Do you have any questions for me? If you have any questions after we hang-up, please send me an email at cameroal@bc.edu or call me at 508 641 0764. Thank you so much for participating in my research study. I would not be able to do this without your input! Please enjoy the rest of your evening. Good bye.

APPENDIX E

Written Permission to Use the Teaching Autonomy Scale (Pearson & Hall, 1993)

Hey Allan, consider this email response as my permission to use the TAS in your dissertation.

L Carolyn Pearson
 Professor and EDFN Coordinator
 Department of Educational Leadership
 College of Education
 University of Arkansas at Little Rock
 2801 S. University Avenue
 Little Rock, AR 72204
 Office: Dickinson Hall, Room 417
 Phone: 501.569.3552
 FAX: 501.569.3547
 email: lcpearson@ualr.edu

-----Original Message-----

From: Allan Cameron [mailto:cameroal@bc.edu]
 Sent: Monday, February 18, 2008 12:28 PM
 To: Carolyn Pearson
 Subject: TAS question

Hello Carolyn,
 Thank you for your guidance regarding the TAS. My dissertation is almost complete and my defense hearing is scheduled for 3/12.

One of the requirements for dissertation publication by UMI is to obtain written permission to reproduce copyrighted material. BC suggested I contact you to receive permission to use the TAS and to have it published as a part of my dissertation. In the paper I attribute the TAS to you and Professor Hall and Professor Moomaw, and I provide a copy of the instrument in the Appendix.

Thank you for your consideration. I really appreciate your support.

Sincerely,

Allan